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ABSTRACT

The purpose of this literature review is to assist teachers and curriculum developers in the practical definition and implementation of career education in their respective school systems. As a part of a larger federally-funded career education curriculum development project, this work is being carried out by a consortium of eight California school districts and the Palo Alto office of the American Institutes for Research. This annotated bibliography contains overviews for each section, abstracts of 160 literature references that provide a broad perspective of career education theories and activities, descriptive summaries of 100 commonly available children's books for use as a career education resource materials, and summary information on 69 supplementary references. In order to produce a reference handbook of manageable size, selective entries were made. For the children's book, information is provided for appropriate grade levels, related occupations, and subject areas, and comments on the career focus are made. (Author/AG)

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CAREER EDUCATION:

An Annotated Bibliography for Teachers and Curriculum Developers

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American Institutes for Research

This report has been prepared by the American Institutes for Research for the Curriculum Center for Occupational and Adult Education, Bureau of Adult, Vocational, and Technical Education, U.S. Office of Education pursuant to Contract No. OEC-0-72-4625.

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CAREER EDUCATION:

AN ANNOTATED BIBLIOGRAPHY
FOR
TEACHERS AND CURRICULUM DEVELOPERS

January 1973

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AMERICAN INSTITUTES FOR RESEARCH

January 15, 1973

To the Reader:

This review is one element of a larger career education curriculum development project being conducted for the Curriculum Center for Occupational and Adult Education, under the auspices of the USOE Bureau of Adult, Vocational and Technical Education. This work is being carried out by a consortium of eight California school districts and the Palo Alto office of the American Institutes for Research.

The purpose of this review is to assist teachers and curriculum developers in the more practical definition and implementation of career education in their respective school systems.

This report covers 327 items discussed in three major reference sections. A general introduction is presented first, then each subsequent reference section starts with an overview and synthesis which is then followed by annotated references. The first of these reviews approximately 160 key references from the professional literature. Complete bibliographical information, as well as an abstract of the content of the reference, is given.

The next section identifies and summarizes 100 titles, in the commonly available children's and youth's literature, that would be useful for teachers who are trying to introduce career education into their classrooms without having to wait for: the eventual publication of instructional material currently under development today; approval by state and/or local curriculum committees; procurement through local school purchasing offices; etc.

Finally, Part IV of the report summarizes information on 69 items of the following types: literature and materials reviews; readily available curriculum materials; selected journals, periodicals, and newsletters reporting on career education; and other key resources readily available to teachers, administrators and curriculum developers.

Since the goal of this effort was to produce a reference handbook for consortium teachers and product developers, a deliberate effort was made to keep its scope to manageable size. The entries in this review are, by definition, selective. A great many items were reviewed which were not included in the report. In general, items were not included if they were:

1) Citations merely describing some local project;

2) Newspaper articles/news releases/or newsletter accounts;

3) Materials simply extolling the merits of career education and exhorting its adoption;

4) Expository materials essentially redundant with earlier, often more seminal, articles by well-known leaders in the field; and,

5) Items amply reviewed and/or cited in other readily available reviews, or via ERIC.

In summary, then, our goal was to provide the reader with a reasonable, selected, theoretical foundation and then to supplement, rather than replicate, other efforts already extant.

We feel we have been reasonably successful in this effort, and we hope you find this report as helpful to you as it has been to us.

In conclusion I should like to formally thank those various project personnel, classroom teachers, students and school administrators who have helped in the preparation of this report.

James A Dunn

James A. Dunn
Project Director

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PART I

INTRODUCTION

PART I

INTRODUCTION

Origins of the Career Education Movement

The designation of career education as one of the major emphases of the U. S. Office of Education for the 1970's was made January 23, 1971 by the newly appointed Commissioner of Education, Sidney P. Marland. During his speech, "Career Education Now," before the National Association of Secondary School Principals in Houston, Texas, Marland suggested that public education was in need of widespread revision if it were to meet the needs of major segments of American youth. Marland noted that two out of every three college students drop out before graduation and that a roughly equivalent number drop out of high school before obtaining their high school diplomas. He suggested that the content, methods and practices of traditional education must be seriously re-evaluated, especially the organizational and administrative procedures which result in the "tracking" of students into college bound, vocational, and general education programs. In particular Marland suggested that we "blend our curricula and our students into a single strong, secondary system," where academic preparation would be balanced with vocational or career preparation.

Marland went on to say, "It is terribly important to teach a youngster the skills he needs to live, whether we call them academic or vocational, whether he intends to make his living with a wrench or a slide rule," that it was "critically important to equip that youngster to live his life as a fulfilled human being," and as culmination, that "life and how to live it is a primary vocation of all of us."

These statements by Marland mark the initiation of a major new effort on the part of the U. S. Office of Education toward the revitalization of educational practices in the United States.

Although there have been some categorical rejections of the concept, there also appears to have been a ground-swell of public endorsement of the concept of career education, ranging from local business associations and community parent groups to President Nixon's Commission on School Finance.

Much of this support stems, no doubt, from the very concerted effort that former Commissioner Marland has made to have career education defined operationally in local communities by teachers, parents, and school boards, rather than by units of the Office of Education and the federal government. As a consequence, there is no single, precise, unequivocal definition of what career education is. It is being nurtured, rather, as a grass roots movement toward the restructuring and redirection of contemporary public education.

There is often general agreement across many projects, however, as to the overall characteristics, purposes, and intents of career education.

Career Education: A General Definition

In general, career education may be considered as the development of the skills and knowledge through which individual students may fulfill their own unique needs with regard to occupational choice, social responsibility, leisure-time activity, and personal development.

Career education is comprised of those gradual, cumulative, educational activities and experiences necessary for a student to achieve increasing knowledge and personal competence, so that he may achieve satisfying and self-sustaining roles in society.

At the minimum, career education involves the development of an objective opinion regarding one's self, knowledge of the various options open to one, and skills in goal formulation, personal planning, and decision making. In its full extent it also involves knowledge of how to augment one's options and how to successfully pursue one's goals.

Career education, then, can be broadly conceived as the aggregate involvements through which one acquires and develops the knowledge, skills, and attitudes required for the meaningful pursuit of vocational, avocational, leisure, social, and personal commitments. In brief career education exists for the benefit of the individual, recognizes the inherent dignity of the individual, attempts to increase the relevance of the curriculum to the specific career needs of individuals, and attempts to demonstrate to the individual the relevance of the school curriculum to his goals in adult life. The implications of such an effort require attention on the part of educators to psychological, sociological, and economic factors as well as simply to instructional methods.

The psychological emphasis suggests that each child should develop an understanding of himself and his own range of potentials and aspirations, as well as skills in making education/career/life decisions; that he needs to be aware of himself in the frame of reference of a world of work. Sociologically, there must be a focus on helping the child understand the socioeconomic structures of our society, and on helping him find a satisfying place for himself within that framework. Economically, a student must be helped to learn not only the realities of paychecks and family finances, but also the relevance of business, finance, and taxation to his own world. And last, but not least, career education must portray the real world. It must seek to bridge schools and jobs so that the maturing student can perceive, and sample, the widest possible range of career opportunities. And it should seek to give the student enough information about himself and about careers so that he will be able to make realistic decisions.

Such ambitious perspectives have enormous implications for schools. A career education focus would operate both vertically -- from early childhood to mature adult years -- and horizontally, cutting across disciplines and subject areas in every part of the school program. The first step would be to change what former Commissioner of Education, James E. Allen, has called "the ironclad separation of academic and vocation" preparation in favor of a fusion of curricula. Anxieties that this might bring a downgrading of academic subjects, or the addition of a "fifth" subject area would have to be assuaged. Wilson Riles (1972), Superintendent of Public Instruction for the State of California has explained that, "Career education envisions not a replacement but a blending of curriculum leading to more relevance in what is being taught. Occupational skills, for instance, provide a means of lending credence and relevance to academic skills."

The American Institutes for Research Career Education Curriculum Development Project

In the summer of 1972, in order to provide schools with a broader array of curricular options and alternatives, the U. S. Office of Education Curriculum Center for Occupational and Adult Education, Bureau of Adult, Vocational, and Technical Education, retained the services of the American Institutes for Research for the development of the scope and sequence of a comprehensive career education program for grades K through 9 and the specification of alternative delivery systems whereby that curriculum might be implemented without major disruption to other instructional activities in typical American classrooms.

As a result the American Institutes for Research, six public school systems, and two county school systems, working in concert, entered into a two-year curriculum development effort.

The AIR Career Education Curriculum Project is concerned with restructuring the K through 9 curriculum in order to increase students':

- Knowledge of occupations, careers and avocational options;
- Knowledge of themselves, their interests, abilities, and values and the relationship of those interests, abilities, and values to various career goals;
- Judgment and decision-making skills with regard to career goal formulation and life-style aspirations; and
- Belief in the inherent dignity of all socially constructive workers, regardless of the nature of the various tasks associated with their work.

The restructuring of the K through 6 curriculum is centered around developing awareness of personal characteristics and career options. In the 7 through 9 program, the curriculum will concentrate on career orientation and exploration, with emphasis placed on helping the student become more knowledgeable about his own characteristics so he can begin to assess the appropriateness of various job clusters for himself.

Teachers, vocational educators, representatives from business and industry, curriculum and learning specialists, school administrators and university personnel are cooperating in the development of the project products. These products are summarized in the following paragraphs.

The Products of the AIR CEC Project

The present report, a selective literature review that identifies relevant research and materials useful for classroom instruction, is the first product of the CEC project. This review will be up-dated during the last few months of the project since rapid development in this area is expected.

Second, a detailed set of instructional objectives pertaining to four basic curriculum strands -- knowledge of self, knowledge of opportunities and options, planning and decision making, and goal exploration -- will be developed, evaluated, and published as a "Career Education Instructional Objectives Catalog."

Third, a series of curriculum guides, one guide for each grade K through 9, will be developed and pilot tested. These guides will cover career education information as it might be infused into mathematics, science, language arts and social studies. The guides will also discuss the philosophy of education underlying career education and the rationale for the behavioral objectives approach to curriculum development. In addition, the guides will include specific behavioral objectives that can be integrated with the regular four subject matter areas, an overview of the entire K through 9 career education curriculum, and a summary of instructional resources, materials and references appropriate for the teacher to use in the development of instructional modules.

The fourth product developed will be sample teaching-learning units. These units will demonstrate how the curriculum can be implemented to fit the age of the learner, the resources of the school system, and the socioeconomic background and needs of the community. They will be implemented in selected demonstration classrooms in various cooperating school systems.

Finally, three other sets of materials will be developed and evaluated. They are: materials to train school administrative personnel in the introduction, maintenance and monitoring of innovative educational programs; materials to train teachers in the use of the curriculum guides; and materials to train teachers in the construction of instructional units.

This report, then, is the first in a series of products that will be produced by the AIR Career Education Curriculum Development Consortium in the coming months.

Overview of the Review

The balance of this report is divided into three sections. The following section provides a summary and annotated bibliography of 160 literature references selected to provide a broad perspective of activity in, and the theoretical foundations of, career education. The section after that, Part III of the report, describes and summarizes 100 books of the type typically available through school libraries and children's sections of public libraries, which can be used as classroom materials in the implementation of career education, without the requirement of major expenditures on the part of the school district. Finally, the third section summarizes information on 69 supplementary references that teachers, curriculum designers, and other material developers might wish to consult for further information with regard to instructional materials, periodic literature reviews, key publications, journals in the field, and the like. Each of these sections may be considered as independent, self-contained reference resources.

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PART II

LITERATURE SURVEY

PART II

LITERATURE REVIEW

Introduction

This portion of the report summarizes the results of the review of several hundred references on career education, vocational education, instructional methods, and guidance and counseling.

A total of 160 items were selected for citation and summarization. For the most part the majority of these references come from the formally published literature. Only 28, or 18%, come from the so-called "fugitive" literature where retrieval through some system such as ERIC is necessary. Thus the literature represented here typically represents fairly well developed statements.

To the extent that these references are not included in ERIC, they represent the type of literature that is most frequently missing from many other reviews.

Theories of Career Development

Theories of career development had their beginnings in the pragmatic efforts of the early years of the century, when a monogamous one-man, one-job, one-time, notion seemed sufficient. The Depression and World War II seemed to make vocational theorizing somewhat superfluous, but by the beginning of the 1950's, vocational choice and behavior had again become an important research area. The work of two prominent scholars, Super and Ginzberg, has had particular implication for introduction of career education into the early grades.

The work of Super (1968) is predicated on a developmental approach that is the antithesis of the static, single-choice, rationale of earlier years. The individual's self-concept is an important component, and the whole process of vocational development may be regarded as a continuum, marked off into periods of growth, exploration, establishment, maintenance, and decline. Similarly, Ginzberg, in his most recent work (1972), defines vocational choice as, "a lifelong process of decision making in which the individual seeks to find optimal fit between his career preparation and goal and the realities of the world of work."

The work of several other authors is also significant. Whiteley and Resnikoff (1972) discuss the concepts of Super, Roe, Holland, and Tiedeman. Osipow (1968) has a particularly good comparative analysis of the major theories. He criticizes their "fragment" status, and says they can serve most usefully as prototypes of future theories. Crites (1969) presents a comprehensive coverage of the whole field.

Empirical Foundations for Personal Career Decision Making

There is little doubt that the most comprehensive empirical study of personal career development ever undertaken is to be found in Project TALENT. One of the major goals of TALENT was to pursue a longitudinal study of the career aspirations, preparation, and development of a large scale, nationally representative, sample of American youth (Flanagan, 1964). Data on almost half a million youth entering, or about to enter, the labor market in 1960 were collected. Follow-up studies have been made on subsets of the sample after 1, 5 and 11 years after leaving high school. (See, for example, Flanagan, *et al.*, 1971).

The reports that have periodically issued from TALENT provide a wealth of information about *actual* as contrasted to *hypothetical-theoretical* career choice, preparation, entry, satisfaction, and success. Of particular interest are the references of Flanagan (1964) on typical employment patterns for youth; Cooley and Lohnes (1968) on the prediction of career patterns; Richards (1971) on career plans; and Flanagan and Jung (1971) on the improvement of career guidance in the schools in the decade 1960-1970.

Unfortunately research findings often are overlooked in the hasty preparations that are frequently required of demonstration projects. One common criticism of the career education/vocational development field is the lack of carry-over from research to actual program practice in the field.

Vocational Choice: Experimental Programs in Career Guidance

One highly significant attempt to bridge the knowledge/practice gap was the Invitational Conference on Implementing Career Development Theory Through the Curriculum sponsored by the National Vocational Guidance Association (1966). The papers presented at this conference represent the best thinking of psychiatry, economics, sociology, and psychology. Another set of efforts are those of a cadre of researchers attempting to harness the power of modern technology for practical school guidance programs; (see, for example, the Proceedings of the Eighth Invitational Conference on Systems Under Construction in Career Education and Development, Tiedeman, 1972; and Dunn, 1972). Finally Dunn, et al. (1972) describe the contributions that the several pupil personnel services can play in the operation of complex career education programs.

Key Components of a Career Education Curriculum

The extent to which career education impinges on psychological, sociological and economic factors of child growth and development and curriculum design underscores its importance as a major educational movement. A cross-section of the interdisciplinary nature of these concerns is included in the bibliography.

Helping the child develop a concept of self that provides for expansion of aspiration and feelings of self worth, while at the same time developing reality appraisal and self-management skills, is an important task of the elementary teacher. Such activities carry out the conceptualization of the importance of the self-concept in career development (Super, 1968). McCandless (1967) corroborates the importance of positive self-concept, and defines it as "a set of expectancies, plus evaluations of the areas or behavior concerning which these expectancies are held." Hill and Luckey (1969) speak specifically of how identification with adult models influences children's occupational growth. Smith (1970) emphasizes the importance of guidance in elementary grades in building children's awareness of the inevitability of social and individual change, so that flexibility in the reality of change can replace insecurities. And Borow (1966) warns against the tendency of children to develop negative attitudes toward some occupations, a prospect which he terms "subjective occupational foreclosure."

A new and highly significant psycho-socio-economic ramification of career education is the growing importance of the "lifelong" view of learning, working, and leisure. Marland (1971) refers to the need to live life as "a fulfilled human being." Sexton (1972) describes this elaborative view as a multi-strand approach to education. Concern that education should not neglect preparation for leisure is also expressed by Rosenberg (1971), who perceives career education as a good vehicle for keeping students attuned to a society "in which the work-leisure paradigm may become a leisure-work paradigm in their lifetime." Super (1967) and DeCarlo (1967) look at the specifics of educational programs that would tie into the notion of making leisure hours rewarding rather than time-killing; and Toffler (1970) addresses the whole issue of the nature of personal lifestyles in the near future.

Another concern that is becoming more and more pervasive is that of worker attitudes--alienation versus job satisfaction. The problems of boredom, high absentee rates, and frequent job changing are concomitants of a highly technological society, but neither management, labor, nor education can ignore them. Schrank and Stein (1971) and Gooding (1972) point out that as the incoming pool of workers have higher educational backgrounds, they are increasingly hopeful their expections of finding personal involvement and fulfillment also increase. Gooding finds this so prevalent that he calls it the new "job revolution."

Berg (1970) criticizes the credentialism factor that requires diplomas as non-relevant prerequisites for jobs.

Discussion of the work ethic appears frequently in the literature. Hoyt (1972) sees career education as a "viable and effective force" for the restoration of the work ethic. Gooding, by contrast, argues that it is superseded by a new concern for the societal contributions and impacts of jobs.

Another reference that is important for curriculum developers is the report on job expectations for the coming decade (Morton, 1971). Predictions of a tremendous surge in opportunities in systems analysis, computer programming, and health occupations, and a severe tapering off of opportunities in teaching, farming, and printing, provide clues for career orientation in school years.

Educational Methodology

The literature that treats the ways and means of implementing new educational endeavors, including career education, covers a vast range of viewpoints. Popham and Baker (1970), for example, offer basic texts on the construction and use of educational objectives.

Specific objectives for career and occupational development have been worked out for the National Assessment of Educational Progress (Goodwin and Norris, 1971).

The Stanford University School Mathematics Study Group (1972) has researched the use and pitfalls of performance objectives in mathematics education.

The technological requirements for a comprehensive career education program are described by Dunn (1972) in a monograph on Individualization in Career Education.

Tennyson (1965) has an excellent handbook (scheduled for up-dating soon) for teachers wishing to weave career orientation into their own subject areas.

DeCarlo (1967) lists the components of what he perceives to be cognitive skills essential for functioning in complex work environments. In addition to the three R's specified by Rosenberg (1972) he adds elements of logical reasoning, understanding of elementary mechanical principles, and electricity. Feldman (1971) urges a "comprehensive" education that integrates academic and vocational education beginning in the early elementary grades. Tyler (1968) urges an end to school as an "adolescent island;" he feels that the world of adult life must be brought into the school. And Illich (1970) urges the deschooling of society altogether.

An urgent call was recently issued by the Conference Board of the Mathematical Sciences (1972) for three things: 1) a junior high school course in computer literacy that would provide every student with a basic awareness of what computers can and cannot do; 2) vocational training in the computer area; and 3) advanced courses in computer concepts and design to augment basic computer education for more select subgroups of the school population.

Super (1967) has recommended a course in vocational social science that would provide the semi-skilled worker of the future basic understanding of such down-to-earth applications of economics as obsolescence and automation, occupational trends, cyclical unemployment, budgeting, and the like. The Joint Council on Economic Education has long been active in building curriculum efforts in the public schools. And, of course, the Senesh curriculum materials are directly relevant in this area. Calderwood, et al. (1970) described the Developmental Economics Education Program, and Super (1967) has made a plea for education that is aimed at making the student "employable," rather than at providing him with specific, and possibly ephemeral, job skills.

Smith (1970) has argued that teaching decision-making as a discrete skill should be an important component of the elementary program.

Finally, Hamilton and Webster (1970) have described a program where extensive knowledge of the world of work, applied economics, and career decision-making skills are embedded as integral components in commercial elementary-secondary social studies curricula.

Implications for Minorities and Women

Career education is often seen as an agent of great potential for change, especially for those subgroups of the population who have been pigeon-holed into educational and occupational dead ends, namely, women and disadvantaged students. The potential it provides for women is clear-cut; the literature echoes the mounting demands that women receive the counseling, the educational training, and the opportunity to enter the labor market on an equal footing with men. Boyle in Turnbull (1972) and Simpson in the anthology edited by Pucinski and Hirsch (1971) provide specific recommendations for carrying through this commitment. Project TALENT provides base line data with regard to the aspirations, abilities, and achievements of women in various occupational fields.

The opportunities career education can open for disadvantaged minority students is a matter for less unanimity. Many minorities are beginning to voice the concern that career education means changing the rules. Just when the educational aspirations of minority members are beginning to seem possible, the establishment suddenly appears to downgrade the value of a liberal education. The Committee for Economic Development in its statement of national policy (McMurrin, 1971) calls for "functional" education that endows the disadvantaged child with basic skills plus comprehensions of the world of work and opportunities to enter it. They are opposed to vocational education however out of suspicion that minority students will suffer from "arbitrary channeling" into narrow-opportunity programs.

The importance of occupational information in broadening horizons of women and minority students is emphasized over and over again in the literature. Hopson and Hayes (1968) report that even when British students from lower socioeconomic groups attend college, they still aspire only to a narrow range of occupational goals with which they are familiar. Minorities in this country need far more help since they often have little or no help in the home or neighborhood environment to acquaint them with alternative work roles and opportunities. Mangum in McMurrin (1971) argues that the "ghetto child needs experiences that are broader than the verbal approaches that work in a middle-class situation." Even for non-minority members, however, it was found that approximately 16% of the secondary students in Project PLAN (a large scale experimental career relevant educational program jointly developed by 13 public school systems) had career aspirations considerably below what their academic ability and achievement would suggest (Dunn 1972).

Career Education and the Elementary School

A number of authors are concerned with the special role of the elementary school as the first formal catalyst for children's career knowledge, attitudes and aspirations. The self-concept of the child is forged in these early years, and Bourisseau (1972), Hill and Luckey (1969) and McCandless (1967) all speak to the part the teacher and school can play in this important development.

Gibson (1972) describes the elementary school as a "laboratory for living" in which children need to acquire experience as well as information so that they can be better prepared when they arrive at educational/career decision points.

Charges that the elementary school age group has been neglected by vocational theory research are made by Borow (1966) and Brown (1970). Their concern over how to counteract negative career attitudes is echoed by Gibson (1972).

Smith's (1970) list of underlying strategies for elementary career guidance stresses the special importance of treating decision-making as a learnable skill.

A chorus of complaints about the limited, biased, and indeed even erroneous career information inherent in early school reading texts gives a clear message of the urgent need to revamp this area of the elementary child's educational experience. Charges range from sex-stereotyping in readers (Jacklin, in press, and Stefflre, 1969) to "scaled-down versions of junior high programs" (Budke, 1971), to sweeping charges (Barry and Wolf, 1962) that career information addresses jobs that are or were, not jobs that will be. Indeed Ginzberg (1971) dismisses occupational information *per se* as "next to worthless." Clearly the need is not for facts and figures regarding DOT titles and categories but for concepts, awareness and appreciation of the complexity of the work world that will permit the student to make probability generalizations to conditions as they will exist in the future.

These criticisms contain some useful recommendations of what good programs should provide in building career awareness in the elementary school years:

(1) Hayes (1968) points out that glamorizing jobs only leads to disillusionment and job switching in later years;

(2) Because swift changes in our society and the accompanying manpower needs are not quickly translated into school materials, because time lags and high costs of producing materials circumvent timeliness, and because school libraries hang on to books long after they become obsolete, Goodson (1971) urges that books be periodically screened and obsolete books discarded;

(3) Because some highly "glamorous" jobs, such as policeman, fireman, astronaut, and nurse are represented in childrens books, television, and text material out of proportion to their actual occurrence in society, and because many books tend to cluster around third grade reading level, systematic publication efforts should be made to provide broad coverage of a wide range of career possibilities at every reading level; and finally,

(4) Because content analyses by Jacklin (1972) found pervasive job-stereotyping in early reading textbook series; and because Stefflre (1969) noted that marriage or work was the message of early readers, although the reality is that most women will marry and work at some stage of their lives, concerted effort would be necessary to counteract institutionalized stereotyping. The expectations of work roles are documented by Simpson (1971), who also charges that occupational limitations are set up from early childhood, despite the lack of any basic sex differences in intelligence.

Conclusion

These then represent but a few of the generalizations and conclusions that may be drawn from the literature reviewed in the following pages. Each reference provides a complete bibliographic citation, a brief summary statement, and when appropriate, a few selected critical comments.

ANNOTATIONS

Author: American Institutes for Research

Title: The "Project ABLE" Student Vocational Plan.
(Grades 7, 8, and 9)

Source: American Institutes for Research; Pittsburgh, Pa., 32 pp.
(ERIC ED 030 720; MF $ .65, HC $3.29)

This report describes the Student Vocational Plan of Project ABLE. Its objectives include student self-evaluation, investigation of the world of work, and the comparison of students' credentials to educational and vocational opportunities. For each of these objectives, student activities were delineated for grades 7, 8, and 9. The plan includes a kit of forms and data needed by the students to carry out these activities. Sample checklists for student goals and job classifications are included in the appendices.

Author: Bachman, Jerald G., et al.

Title: Dropping Out -- Problem or Symptom?

Source: Youth in Transition (Vol. III). Institute for
Social Research, University of Michigan, Ann
Arbor, 1971, 250 pp., $5.00

The substance of this report on a longitudinal study of adolescent boys is that the "anti-dropout" campaign is a misguided national educational policy. This policy rests on what the authors conclude is a false assumption that high school graduation will insure better job opportunities and earnings. On the contrary, their data corroborate findings of Project TALENT that dropouts earn even a little more than non-college high school graduates. Moreover, the propaganda to stay in school casts a needless stigma on the dropout as a failure in the eyes of his family, employer, and his peers.

Their thesis is that dropping out should not be regarded as a problem, but as a symptom of serious personal and socioeconomic difficulties which are not likely to be ameliorated by more of the same school experience. Instead, they recommend treating these symptoms in innovative ways: early childhood intervention, alternative educational options, and recognition by employers that many jobs do not require a high school diploma.

Author: Barry, Ruth and Wolf, Beverly

Title: An Epitaph for Vocational Guidance: Myths, Actualities, Implications

Source: Bureau of Publications, Teachers College, Columbia University; New York, 1962, 256 pp., $6.25

The authors analyze the stereotyped practices of vocational guidance that pervaded the field in the early 1960's. Their criticisms of the Dictionary of Occupational Titles system and occupational information treatments have implications for curriculum developers of the 1970's.

In discussing the weaknesses of the DOT, they complain that it was designed for use by experts in employment offices, not for students. They describe it as "simultaneously the most formal and complete classification of occupations and the most confusing." They acknowledge the value of the job family concept as a method of classifying occupations but complain that the DOT classifications "establish job families within the framework of a mixed-up classification system without a rationale."

In discussing occupational brochures, they point out that obsolescence is built in; the information provided to a junior high school student will be six to eight years out of date by the time he reaches adulthood, and tells him about jobs that were, not jobs that will be. Changes in the environments of the work world are so pervasive, both overt and subtle, that it is poor practice to rely on obsolete brochures.

Author: Berg, Ivar

Title: Education and Jobs: The Great Training Robbery

Source: Praeger Publishers, Inc.; New York, 1970, 224 pp., $7.50

This has been a widely quoted report on the diploma requirement levied by many employers during the 1960's. Berg's position is that the shift upward to require a high school diploma for blue-collar jobs and at least two years of college for white-collar jobs was not based on demonstrated superior job performance. Rather, it was more likely that employers felt that as evidence of reliability and persistence, a diploma was an indicator of future work dependability.

Author: Borow, Henry (Ed.)

Title: Man in a World at Work

Source: Houghton Mifflin Co.; Boston, 1964, 606 pp., $12.50

This reference deals with the many facets of research and practice associated with man in the totality of work environments. Originally published by the National Vocational Guidance Association in commemoration of its 50th anniversary, the reference includes articles by prominent individuals in the fields of psychology, sociology, psychiatry, economics, and manpower development. The four sections are entitled: (1) The Roots of Vocational Guidance, (2) The Occupational Kaleidoscope: Vistas of Man at Work, (3) Research Horizons, and (4) The Professional Practice of Vocational Guidance.

Author: Borow, Henry

Title: Conjunction of Career Development and Curriculum: Problems and Potentials

Source: Conference on Implementing Career Development Theory and Research Through the Curriculum. National Vocational Guidance Association; Washington, D. C., 1966, pp. 17-32

This paper is another bridging operation between the world of research on vocational behavior and the world of the school in handling the realities of vocational attitudes and development. Borow discusses the walling off of children from the direct familiarity with the work environment that children took for granted in less highly industrialized societies. This separation makes it even more incumbent upon the school to provide accurate and complete information to combat what Borow terms "subjective occupational foreclosure" -- the development of negative attitudes toward some occupations without factual basis for such judgments. He notes that all too often children are more aware of the power of an occupation to confer status than of its day-to-day obligations or prerequisites.

This discussion achieves its aim of opening up communication between the research community and the practitioners when curriculum developers undertake to remedy the "subjective occupational foreclosure."

Author: Borow, Henry

Title: The Development of Occupational Motives and Roles

Source: Review of Child Development Research (Vol. 2),
L. Hoffman & M. Hoffman (Eds.). Russell Sage
Foundation; New York, 1966, pp. 373-422

This analysis of the cross currents of research on occupational motives and roles has great relevance for the elementary curriculum developer. Borow is critical of existing research for neglecting the study of the occupational behavior of elementary school children. He notes that long before the individual enters the labor market it is possible to study his concepts about work, his rationale for ranking occupations, his patterns of decision making. His attitudes toward education and employability, as well as others. He sees vocationally relevant behavior as beginning in a developmental process in early childhood, with many societal and familial factors operating to influence that behavior.

The paper analyzes the research background and current realities in the economic, sociocultural and psychological contexts of vocational behavior.

Author: Bourisseau, Whitfield S.

Title: To Fathom the Self: Appraisal in School

Source: The Child and His Image; Self-Concept in the Early Years, K. Yamamoto (Ed.). Houghton Mifflin Company; Boston, 1972

This discussion is devoted to how teachers can help a child develop a positive self-image in early school years through close attention to significant indicators, both verbal and non-verbal. Bourisseau holds that this role of the teacher is equal in importance to his responsibilities for cognitive learning. Some of the significant clues are provided by a child's posture, voice quality and speech content, role in free play, conversation, drawings, and stories. He also points out that the teacher's responsibility does not end with appraisal; he may also face the difficult task of compensating for a negative self-image occurring within the home environment.

Author: Brown, Duane

Title: Students' Vocational Choices: A Review and Critique

Source: Career Information and Development, S. C. Stone & B. Shertzer (Eds.). Guidance Monograph Series IV. Houghton Mifflin Co.; Boston, 1970, 80 pp., $1.80

This is a review and critique of research on vocational choice at different age levels: pre-adolescence, early adolescence, late adolescence and early adulthood, and adulthood. Its special relevance for career education is Brown's discussion of the shortcomings in research focusing on early school years. He argues that the realistic quality of vocational choices starts much earlier than is often hypothesized, beginning at third grade for some children. Although this is counter to the "fantasy" stage concept of Ginzberg's occupational development theory of 1951, it has important implications for introducing occupational development material into the elementary school program. Brown sees the classroom teacher as carrying the major responsibility for investing career development into the school program.

Brown's view of the importance of early school years makes him highly critical of the "scarcity" of good research focusing on this age. His survey of research on early adolescence, in contrast, finds no such scarcity; however, he argues that there is very little carry-over from research to school programs. He also points out that although massive amounts of data have been collected, the lack of a tight set of definitions for "vocational aspiration," "vocational choice," and "vocational preference" makes it difficult to make interpretations and comparisons among studies.

Author: Budke, Wesley E.

Title: Review and Synthesis of Information on Occupational Exploration

Source: ERIC Clearinghouse on Vocational and Technical Education, Information Series No. 34, U. S. Government Printing Office; Washington, D. C., 1971, 90 pp., $.55, (ERIC ED 056 165; MF $.65, HC $3.29)

The dearth of programs providing for occupational exploration at the elementary school level is an important finding of Budke's comprehensive literature search. Such programs that were described in the literature were part of guidance programs and largely experimental in nature. Moreover, they seemed to be merely "scaled-down versions" of those offered in the junior high school, which raised the question as to what, in fact, the goals of elementary programs should be. Budke poses the question of whether or not "they are primarily a method or medium of instruction whereby subject material takes on greater reality when associated with the world of work." He concludes that there is need for much study in this area to identify program objectives, and provide strategies and curricular help for implementing them.

Author: Burkett, Lowell A.

Title: Task Force Report on Career Education

Source: American Vocational Journal, 1972, vol. 47, no. 1, pp. 12-14

The resolutions in this Task Force document throw the official weight of the American Vocational Association behind the concept of career education. They were adopted by the AVA House of Delegates at the 1971 annual convention held in Portland, Oregon, and call for a top-level White House Conference as well as state and national forums on career education.

Action recommendations call for joint efforts involving education, business, industry, and labor to implement school programs integrating career awareness and orientation, exploratory work experiences, decision-making skill development, use of occupational clusters as a curriculum framework, and specialized job training. Other areas of concern are vocational guidance, job placement, and curricular development. General resolutions urge support for professional personnel development programs, research to develop exemplary programs and new models, and advisory councils for education for careers at national, state, and local levels.

Burkett issues a strong plea for AVA to assume a leadership role to insure that career education plays a mainstream role in American education, or, he warns, "We can expect career education to falter as have many progressive ideas before it.

Author: Burkett, Lowell (Ed.)

Title: Career Education: Is It a Fad or a Major Development?

Source: American Vocational Journal, 1972, vol. 47, no. 3, entire issue

The high level of concern of the American Vocational Association over the meaning and implications of career education is evidenced by their decision to devote their entire March issue to its appraisal. Former Commissioner Marland, Norman Gysbers, Kenneth Hoyt, and Gordon Swanson all have articles on the overall ramifications of career education. Marland thinks that education is doing fairly well in two of its programs - college preparatory and vocational-technical, but the trouble is that the majority of students are not reached by those programs. This is the rationale for his proposal to institute a new form of career education, whether headed for college or job. Hoyt makes the point that adequate career choice will depend as much on "the changes vocational education is willing to make as on changes in counselors and school guidance programs." Swanson points out that schools may help students make career choices, then fall short in equipping them with the skills needed in the chosen careers. Gysbers' article is abstracted separately in this literature review. Other authors describe specific programs in various settings.

Author: Calderwood, James D., et al.

Title: Economics in the Curriculum: Developmental Economic Education Program

Source: John Wiley & Sons; New York, 1970, 227 pp., $3.50

This is the major reference for the Developmental Economic Education Program sustained by the Joint Council on Economic Education. It represents the thinking of a task force of leading economists of the American Economic Association as to what constitutes literacy in economics at both personal and societal levels and how it can be incorporated into the classroom. Part II contains illustrations of classroom activities at various grade levels.

Author: Claudy, John G.

Title: Occupational Outcomes; Who, What and Why

Source: Presented at the Annual Meeting of the American Psychological Association; Miami, 1970, 20 pp.

A vast amount of data on changes in career preference is presented in this paper. The data were obtained during the initial testing and the five year follow-up of Project TALENT, a large scale longitudinal study conducted by the American Institutes for Research. In general, the data indicate considerable instability in career plans of high school youths. For boys, the most apparent change in career plans is reflected by the high percentage who shift their goals away from careers in the engineering and science fields and toward the business and trade fields. Although the career preferences of high school girls reflect some variability, the majority of the females preferred careers as teachers or homemakers five years after their departure from high school. Neither personal attributes nor high school curriculum appeared to be efficient predictors of career preference stability. Those who had chosen careers at early ages, were most certain about their decisions, and had obtained college educations had the most stable career preferences.

Author: Conference Board of the Mathematical Sciences Committee on Computer Education

Title: Recommendations Regarding Computers in High School Education

Source: Conference Board of the Mathematical Sciences; Washington, D. C., 1972, 25 pp., (ERIC ED 064 136; MF $.65, HC $3.29)

This report urges a course in "computer literacy." The rationale expressed for such a course is that, "It is essential that every student become acquainted with the nature of computers and the current and potential roles which they play in our society. It is probably too late to do much about adults, but is would be disastrous to neglect the next generation."

Minimal expectations for such a course are: (1) to give the student an understanding of what a computer can and cannot do; (2) include a wide sampling of how computers are used in society (sample problems are included that involve biology, ecology, economics, sociology, civics, etc.); and, (3) introduce the idea of an algorithm and its representation by flow charts.

The report also recommends "a major effort aimed at making vocational computer training more generally available and at the same time improving the quality of such training."

Author: Cooley, William W.

Title: Career Plan Changes in Boys During the High School to Post High School Transition

Source: Paper presented at the Annual Meeting of the American Psychological Association; New York, 1966, 15 pp.

Cooley describes the statistical procedures used to gain insight into changes in career preference which occur after high school. Data from the many measures in the Project TALENT test battery were subjected to discriminant function analysis and centroids of career preference groups were plotted in a two dimensional configuration (based on the largest two discriminant functions). Data from career preferences one year after high school were then added to the analysis and arrows were added to the discriminant map showing the directionality of change in group centroids. The TALENT test battery was shown to be quite accurate in predicting the direction of group change. The methods described in the paper were discussed as having considerable heuristic value in assessment of career preference changes.

Author: Cooley, William W. and Lohnes, Paul R.

Title: Predicting Development of Young Adults

Source: American Institutes for Research, Palo Alto, California and School of Education, University of Pittsburgh, Pittsburgh; 1968, 225 pp., $5.00

This report encompasses three major areas (theories of adolescent personality, predicting of educational outcomes, and predicting of career patterns) and integrates conceptual backgrounds with Project TALENT data to formulate new approaches to career guidance and development.

Chapters III, IV, and V concentrate on career development and prediction. Chapter IV contains a detailed analysis of major thrusts in making the study of career patterns a developmental cognitive psychology. In summarizing this discussion, the authors conclude, "Ginzberg and Super have created a theoretical context for a large-scale, national longitudinal research on career development such as Project TALENT. Now it is appropriate for the empiricism to flesh out and modify the theory."

Using the merged data file combining the results of the 1960 Project TALENT studies and the one-year and five-year follow-ups, the authors derive a wealth of information on the critical adjustment period from late adolescence to young adulthood. From this base they conceptualize a career development tree structure that synthesizes their findings and provides a model for career psychology and guidance. The closing discussion analyzes the potential of computer guidance systems that can operate the complex calculus required to process and integrate long range goals with interests, aptitudes, and achievement of individual students.

Author: Crites, John O.

Title: Vocational Psychology

Source: McGraw-Hill Book Company; New York, 1969, 704 pp.,
$13.50

This textbook provides comprehensive and scholarly coverage of the field of vocational behavior. The book is divided into two main sections, one on vocational choice and one on vocational adjustment. Crites also notes the need to distinguish between the science of vocational behavior and the practice of vocational guidance.

Author: Cunha, Joseph E., et al. (Eds.)

Title: Career Development: A California Model for
Career Guidance Curriculum K-Adult

Source: California Personnel and Guidance Association,
Monograph Number 5; Fullerton, 1972, 102 pp.,
$2.00

This report presents a model for a conceptual framework for the development of career guidance programs developed by the California Task Force of the State Bureau of Pupil Personnel Services. It shows graphically how the three major components (career planning and decision-making, education, work, and leisure alternatives, and life styles and personal satisfactions) promote career identity.

The model also defines three levels of objectives, awareness, accommodation, and action, and gives illustrations of objectives that can offer guidelines for individual schools working to generate their own career guidance programs. The report also includes a chapter on how to implement and evaluate career guidance programs in the schools.

Author: Dailey, John T.

Title: American Youth Seeks Employment

Source: The American High School Student, J.C. Flanagan, et al. Project TALENT office, University of Pittsburgh; Pittsburgh, Pennsylvania, 1964, Ch. 13

As part of Project TALENT of the American Institutes for Research, a questionnaire was mailed in 1961 to a sample of then-recent high school graduates. All members of the sample had previously undergone intensive testing during an earlier phase of Project TALENT. The questionnaire included several questions about employment status. One year after high school graduation 36.6% of the males and 36.9% of the females were employed full time. The types of employment appeared to be related to several factors, including aptitudes and abilities, sex, and whether or not the person had entered college.

Among males who entered college (and were working either full time while in school or had dropped out), 12% were working at unskilled labor and 12% were involved in some clerical task. The largest proportion of males who had not entered college had entered the armed services (14%). Office, secretarial, and clerical work were jobs most frequently held by females. Those jobs employed 40% of those who had entered college and nearly 50% of those who had chosen not to continue their education.

Men with high verbal aptitudes were more likely to be working in white collar settings than men with poorer verbal skills. Technical and visualization skills also were related to the type of employment for men. Test scores of the females who became office workers did not differ substantially from those of the female norms established by Project TALENT.

Author: DeCarlo, Charles R.

Title: Work and Vocational Education

Source: New Conceptions of Vocational and Technical Education, M. Rosenberg (Ed.). Teachers College Press; New York, 1967, pp. 45-59

The author defines vocational education in terms of the cognitive skills necessary to function in complex work environments. He regards the acquisition of job skills as a function of post-school employment because rudimentary job skills are quickly learned on the job, and more specialized skills can only be acquired there.

Taking a long look at the present and future conditions of the work environment, DeCarlo points out that, "The work world including the processes of production, distribution, finance, and control, is becoming increasingly characterized by cognitive functions rather than muscular skills." Moreover, the worker must learn to participate with others as elements of a large system which provide both "security and identity" in the work world.

With these prerequisites, DeCarlo lists the specifics that he feels should be fundamental for effective vocational training. They are: general reading, writing and communication ability; arithmetic skills; an elementary knowledge of accounting and economics; elements of logical reasoning, including the understanding of work procedures and contracts; understanding of the basic mechanical principles of elementary machines; and elementary knowledge of various electrical principles, such as house wiring and TV.

He also predicts that future life styles may make the use of leisure increasingly important as hours spent at work decrease, a factor that underscores the need for maintaining the "liberalizing influences of general studies."

Author: Dillman, Caroline and Rahmlow, Harold F.

Title: Writing Instructional Objectives

Source: Fearon Publishers; Belmont, California, 1972,
120 pp., $2.50

This handbook on how to write instructional objectives covers general rationale as well as specific techniques of phraseology, style technicalities, checklists, and worksheets. The book resulted from the authors' experience with teachers who produced objectives for Project PLAN at the American Institutes for Research. Teachers from five states collaborated over a four year period in preparing the PLAN teaching-learning modules for grades one through twelve in language arts, mathematics, science, and social studies.

The concluding chapter provides twenty-five samples of objectives with space for teachers to revise or adapt them to their particular needs.

Author: Division of Vocational and Technical Education, Office of Education; Health, Education, and Welfare

Title: Abstracts of Exemplary Projects in Vocational Education

Source: Division of Vocational and Technical Education, Office of Education; Health, Education, and Welfare (ERIC ED 060 189; MF $.65, HC $6.58)

This report contains abstracts of the 54 exemplary research-based projects in vocational education that were pioneer efforts in what is now known as career education. These projects were the first to attempt the task of devising broad-scale intervention at all grade levels to provide vocational expertise and to bridge the gap between school and work. The work on developing comprehensive models for career education now supported by the Office of Education research wing is utilizing many of the components which have emerged from the experience gained in the national network of these exemplary programs.

Author: Division of Vocational and Technical Education,
Office of Education; Health, Education, and Welfare

Title: Abstracts of Research and Development Projects in
Career Education

Source: Division of Vocation and Technical Education,
Office of Education; Health, Education, and Welfare,
(ERIC ED 063 520; MF $.65, HC $6.58)

This document contains abstracts describing the approaches used in 1972 research and development projects in career education, state by state. Recognizing the need for state options in addition to the centrally-administered large-scale-model building projects, former Commissioner Marland added $9 million of discretionary funds to the $9 million available for states to establish meaningful well-developed career education programs with strong guidance and counseling components. The document sketches the general framework of federal expectations for the funding levels and contains individual program abstracts.

Author: Drier, Harry N., Jr. and Associates

Title: K-12 Guide for Integrating Career Development into
Local Curriculum

Source: Charles A. Jones Publishing Co.; Worthington, Ohio,
1972, 265 pp.

This resource and program handbook represents two years of effort by the Wisconsin State Department of Public Instruction to systematize programs of career development in classroon approaches. Extensive workshop planning and testing, involving 290 staff members in local schools, went into the production of the guidelines and resource lists. The book contains conceptual models, sample behavioral objectives, and extensive lists of printed and audio-visual materials catalogued by age level and by emphasis--Self, Planning and Preparation, and World of Work.

Author: Dueker, Richard L. and Altman, J. W.

Title: An Analysis of Cost and Performance Factors in the Operation and Administration of Vocational Programs in Secondary School (Final Report to Office of Education, Bureau of Research)

Source: American Institutes for Research; Pittsburgh, Pa., 1967, 40 pp.

The purpose of this research was to identify the kinds of cost and related data that are presently obtainable from individual schools to aid vocational education and planning. A school costs questionnaire was developed and administered to a nationwide sample of 16 vocational and 16 comprehensive schools with the aim of deriving meaningful cost-per-pupil figures for vocational education.

Coherent analysis was hampered because available cost data were not in a form which lent themselves to analysis. Available cost data were reviewed as inadequate to serve long-range needs for planning and evaluation of educational programs. The report recommended the development of an information system for the planning and evaluation of vocational programs.

Author: Dunn, James A.

Title: Project PLAN: Guidance Through the Instructional Process

Source: Paper presented at the American Personnel and Guidance Association Convention; Las Vegas, Nev., April 2, 1969, 10 pp.

The development of a comprehensive guidance system as an integral part of Project PLAN's instructional system is described in this paper. Dunn discusses the aspects of the PLAN program which concentrate on developing the student's awareness of himself and his capabilities, knowledge of the world around him, and a sense of his own agency.

The PLAN system rests on five major philosophical assumptions: (1) a child's program of learning should be constructed in accordance with his needs; (2) the child should be assisted in identifying his needs on the basis of his understanding of his abilities and their relevance to the goals he has been helped to formulate; (3) the child should become increasingly responsible for the development of his own individual plans and for their execution; (4) planning should be rational and based on adequate relevant information regarding both the individual and goals he has set for himself; and (5) one of the primary purposes of education is to assist the child in the development of skills in planning and self-management.

These assumptions are carried out in the PLAN guidance program which offers approximately 1200 hours to be distributed over the child's 1-12 experience.

Author: Dunn, James A.

Title: The Development of Procedures for the Individualization of Educational Programs

Source: Paper presented at the American Psychological Association Convention; Miami Beach, Florida, September, 1970, 16 pp.

This paper describes how Project PLAN functions in providing educational programs tailored to fulfill the needs of the individual child. To provide individualized programs for a broad K-12 curriculum required the development of a reservoir of approximately 2,500 teaching-learning units, each of which has its own criterion test. The necessary background information on students' interests, abilities, achievements, and aspirations is provided by a two-day battery of tests.

As students move into secondary school, PLAN assists in helping them formulate long range educational and vocational goals. Twelve long range goal clusters identified from Project TALENT data are used in an attempt to keep career planning as flexible as possible.

Dunn explains four major new components added to the current PLAN program. They are: (1) greater flexibility in the sequencing of modules; (2) procedures for reviewing academic content on which students may have become rusty; (3) procedures for obtaining credit by examination for material which they have not formally studied; and (4) procedures for helping them become more knowledgeable about long-range educational and vocational goals. These procedures, though utilized in PLAN at the secondary level, are also relevant to career education in earlier grades.

Author: Dunn, James A.

Title: The PLAN Approach to Curriculum Definition

Source: Education, 1970, vol. 90, no. 3, pp. 221-238 and reprinted in Individualized Instruction: Programs and Materials, J. E. Duane (Ed.). Educational Technology Publications; Englewood Cliffs, N.J., 1972

This article describes the concepts underlying PLAN--the involvement of a computer system as record-keeper so that the teacher is free for the important task of individualizing the student's educational progress.

PLAN was developed to remedy some major deficiencies of the educational system illuminated in Project TALENT data, including lack of curricular relevance and effectiveness, and failure of schools to develop students' sense of responsibility for their educational outcomes.

Extensive appraisals of curricular materials and programs led to the development of teacher-learning units which reference commercially available materials. A TLU contains approximately five behavioral objectives and takes ten hours of class time.

Author: Dunn, James A.

Title: The 1970 PLAN Guidance Program

Source: 1970 PLAN School Superintendents' Conference,
American Institutes for Research; Palo Alto,
California, 1970 (ERIC ED 038 677; MF $ .65)

This paper explains the rationale for the PLAN Guidance Program as well as operational procedures. Dunn defines the PLAN goals as follows: (1) to help the student develop capacities for making wise long-range future plans; (2) to appreciate the realistic probabilities of attaining his goals; (3) to persevere toward these goals with skill and diligence; and (4) to work out a personally satisfying balance between work, leisure, and citizenship involvement. Traditional public school rigidity, usually a barrier to a comprehensive guidance system, is not a problem in the PLAN system since PLAN is not subject to formal course or grade level structuring and can be incorporated easily into a school's ongoing program.

Dunn analyzes the major emphases of the PLAN system: (1) orienting new students to PLAN and orienting currently involved students with its revisions; (2) helping students improve their listening, study and test taking skills; (3) providing students with a broad base of information on the world of work; (4) helping students develop awareness of their own potentialities and perceptiveness in relating their capabilities to educational and vocational goals; (5) assisting students and their parents to formulate those goals; (6) developing individualized programs of study for students, and (7) providing modules that help high school seniors with the transition to post-secondary education, work, or military service.

Author: Dunn, James A.

Title: Guiding Students Through Appropriate Curriculum in PLAN

Source: Developmental Efforts in Individualized Learning, R. A. Weisgerber (Ed.), F. E. Peacock Publishers Inc.; Itasca, Illinois, 1971, pp. 27-35

Dunn discusses the two cornerstone problems of individualizing educational programs: how the curriculum should be defined and how it should be implemented. The particular focus of this paper is on implementation, as conceived by Project PLAN. PLAN stresses that individualized education must do more than vary the amount of exposure to common curricular content; it must tailor the curriculum to the goals and needs of the particular child. To accomplish that massive monitoring task, PLAN utilizes computer support which can store and make available extensive data on students' interests, abilities, achievements, aspirations, parental goals, and learning styles. These data are used to construct an individualized program of study (POS) from the more than 1,000 modules and 1,700 teaching-learning units (TLU's).

Author: Dunn, James A.

Title: Career Education and Guidance in the PLAN System of Individualized Education

Source: Career Education and the Technology of Career Development. The Proceedings of the Eighth Invitational Conference on Systems Under Construction in Career Education and Development, American Institutes for Research; Palo Alto, California, 1972, pp. 81-116

This report provides both overview and working outlines of PLAN in its utilization for bringing career education and guidance into the curriculum. PLAN was conceptualized as an outcome of Project TALENT's confirmation of the great disparities in levels of ability manifested by high school students--a factor which renders a fixed-level approach unsuitable for both above and below level students.

To make individualized education a reality, PLAN encompasses three major theoretical components:

I. Instructional Resources -- which comprise more than 6,000 instructional objectives, 1,500 criterion referenced performance tests, 133 PLAN achievement tests, and a variety of guidance tests and other resource publications.

II. Guidance System -- which involves the creation of student guidance and career education programs and the development of Programs of Study (POS).

III. Support Services -- which include information systems, computer services, teacher training, and materials procurement.

The report also contains sample documents selected from these three major components.

Author: Dunn, James A.

Title: The Guidance Program in the PLAN System of Individualized Education

Source: American Institutes for Research; Palo Alto, California, 1972, 73 pp., $2.32

This report discusses the role of the guidance component in projecting Project PLAN beyond individualized instruction to the broader dimensions of individualized education. The guidance program is fused with several academic strands. In the applied economics strand of social studies, the student learns about the world of work, life styles associated with various careers, and educational requirements. The psychology strands of social studies and science programs provide opportunities for the student to learn about individual differences, his own capabilities and potential for development, study skills and test taking strategies, and skills in planning and long-range goal formation.

The first priority of the PLAN guidance system was to accommodate normal growth and development. Subsequent effort was directed to develop new techniques to improve desirable or extinguish unwanted behavior in selected children. The underlying assumptions of PLAN are: (1) guidance should be an integral part of the regular academic program; (2) schools should make a more concerned effort toward accommodating parental wishes and aspirations for their children; (3) guidance should be a two-way operation--it should both help students develop goals and also make the educational system sensitive to the needs and interests of students; (4) guidance programs should be predicated on empirical evidence.

The remainder of the report contains detailed descriptions, charts, and examples showing how these assumptions have been carried out in the PLAN system.

Author: Dunn, James A.

Title: Individualization of Education in Career Education

Source: American Institutes for Research; Palo Alto,
California, 1972, 166 pp., $4.50

This report describes the rationale for synthesizing individualized education and career education programs. The early chapters trace the history and rationale of individualized education. The author describes individualized education as "tailored to the particular student's interests, abilities, needs and learning styles" and points out that the term is often just a misnomer for programs where "little is individualized save the rate at which the learner progresses through the materials." Four major approaches to individualized learning are described, including differentiated group and teaching methods; individual student response systems; child-oriented classrooms, and structured curriculum models. The instructional objectives approach to the problem has gained in importance as scholars have clarified the characteristics of good objectives, particularly in the light of increasing emphasis on accountability and criterion-referenced testing. Another approach is programmed instruction, although its use of computers has caused high costs per student hour. Descriptions of major current programs in individualized education include Project PLAN, Individualized Prescribed Instruction, and the "cognitive style map" developed by Oakland Community College. Part II delineates the requirements for comprehensive individualized instruction using the conceptual components of PLAN. These cover student goal formulation, curriculum analysis, organization and presentation, and the necessary information system.

Author: Dunn, James A., et al.

Title: Feasibility of Guidance, Counseling, and Pupil Personnel Services in Employer-Based Career Education

Source: American Institutes for Research; Palo Alto, California, 1972, 111 pp., $3.27

The feasibility of infusing overall guidance, counseling and other pupil personnel services into a framework of employer-based career education (EBCE) is explored in this study.

The basic tenets of EBCE--that programs be functionally relevant and take place in a meaningful real-life context--pose central problems. Five major EBCE dimensions are discussed: (1) number of employees involved; (2) number of agents providing the service; (3) centralization of educational facilities; (4) degree of physical concentration of the student body; and (5) number of students involved.

Of five alternative models for counseling and guidance in EBCE programs considered, the two deemed most relevant are the multifacet and the counseling team model. The study examines organizational and administrative models for operating effective work-study programs. The Comprehensive Career Guidance System (CCGS) is suggested as an approximation "which deserves careful scrutiny" because of its adaptability for providing teaching-learning units (TLU's) keyed to vocational, educational, personal-social, academic-learning, citizenship, and leisure needs. The study also deals with diagnostic and other services that might be incorporated within EBCE.

Author: Feldman, Marvin J.

Title: Comprehensive Education: Redefined for a Humanist Society

Source: Vocational Education: Today and Tomorrow, G. G. Somers and J. K. Little (Eds.). Center for Studies in Vocational and Technical Education, University of Wisconsin; Madison, 1971, pp. 327-347

This essay argues for bringing vocational education, "when conceived of as a tool for comprehensive education rather than as an end in itself," into the continuum of education from early grades through at least 14 years of schooling. Feldman holds that vocational processes and resources are "tragically misused" in American education, particularly since they could offer important alternative learning styles which utilize graphic, manipulatory, or affective strengths, rather than the single-standard verbal aptitude basis of traditional programs.

His thesis is that schools should begin at the elementary level to provide a coordinated curriculum, in which vocational and general education "reinforce" each other and provide transferability of skills. His plan for achieving this kind of coordination includes an annual career objective analysis for each student. This would help the vocationally-oriented student know how his abilities relate to job goals much as the college-bound student is counselled as to optimal fit between his abilities and possible choices of colleges.

Author: Flanagan, John C.

Title: The Stability of Career Choice Between Ages 15 and 19

Source: Paper presented at the Annual Convention of the American Psychological Association; Chicago, 1965, 10 pp.

Flanagan investigated the stability of career plans of a representative sample of American ninth, tenth, eleventh, and twelfth grade students. He compared plans indicated by a sample of students in each of these grades with the plans of these same people one year after they had completed high school. Data indicated that the career plans of the average American high school student were quite unstable. Guidance programs which enhance self-understanding were suggested as a potential remedy to the problem.

Author: Flanagan, John C.

Title: Project PLAN: The Basic Role of Guidance in Individualizing Education

Source: Paper presented at the Association for Measurement and Evaluation in Guidance; New Orleans, March, 1970, 13 pp. (ERIC ED 038 676; MF $.65, HC $3.29)

The shortcomings of the traditional educational structure revealed in the Project TALENT studies provided an impetus to develop the Project PLAN system described in this paper. Flanagan outlines the major components of PLAN as follows: (1) an extensive informational program describing the spectrum of opportunities, roles, and activities open to the student; (2) ability and interest testing and evaluation; (3) a series of modules designed to develop decision-making skills; (4) utilizing the foregoing data to assist the student in formulating his personal goals; (5) relating the student's goals to his educational planning; and (6) helping the student acquire skills in carrying out his objectives.

Author: Flanagan, John C.

Title: The Psychologist's Role in the Quest for Fulfillment

Source: Presidential Address, Division of Educational Psychology, American Psychological Association; Miami Beach, Florida, 1970, 11 pp.

One of the important findings yielded by Project TALENT was that perceived importance of one's work and individual freedom were important factors in job selection. Young people wanted to enter professions which seemed important to them and which allowed them freedom to make their own decisions.

In his presidential address to the American Psychological Association, Dr. Flanagan asserted that the American educational system is not meeting some of the basic needs of students. An effective system would more adequately assist students in formulating their goals and provide a program leading toward individual fulfillment. Some of the preliminary needs of the system include: (1) an understanding by the student of his own abilities, interests, and life options; (2) skill in decision making; (3) knowledge and skill in behavior modification and behavior management; (4) procedures for identifying a program of study or curriculum for individualizing education; (5) procedures to augment learning in the pursuit of each student's required goals; (6) improvement of measuring instruments to assess student progress; (7) development and application of teacher training techniques to prepare teachers for their changing roles in education; and (8) development and monitoring of new programs in education.

Changes in the educational system based on the needs cited above were viewed as important for the development of individualized education programs which would permit students to obtain a fully satisfying life.

Author: Flanagan, John C.

Title: Developing An Occupational Grouping for Use in Career Planning

Source: Project TALENT: Five Years After High School, J. C. Flanagan, et al. American Institutes for Research, Palo Alto, California and the University of Pittsburgh, Pittsburgh, Pennsylvania; 1971, Ch. 6

This chapter defines and describes twelve occupational goal groups. The groups are based upon the abilities, interests, and personality test scores of students who, when contacted five years after high school, were planning careers in the twelve occupational fields. There appeared to be marked similarities among persons seeking careers within any career group. Occupational goal group data from Project TALENT may provide a sound basis for high school students to compare their own abilities, interests, and personality test scores with those of persons choosing different fields of employment five years after high school.

Author: Flanagan, John C.

Title: Some Findings from Project TALENT Regarding Career Plans

Source: Career Education and the Technology of Career Development. The Proceedings of the Eighth Invitational Conference on Systems Under Construction in Career Education and Development. American Institutes for Research; Palo Alto, California, 1972, pp. 65-81

This paper describes the findings of the Five-Year Follow-Up Studies of the educational and occupational experiences of more than 129,000 students who completed the original battery of tests in Project TALENT studies of 1960. A primary goal of this study was to obtain data useful in providing guidance to students planning their vocational goals. One of the needs, Flanagan points out, has been that of optimal grouping of occupations in terms of educational and ability requirements which could provide "a sound transition from the choice of several large areas to a specific occupational goal."

The paper includes graphic presentations of the data obtained from the study. Flanagan notes that the data show the instability of the career plans of most 12th grade students. However, he points out that a 1970 survey of 11th grade students in a smaller sample of the original Project TALENT schools indicates that career plans in 1970 were "much more sophisticated and realistic than those of students in American high schools in 1960." He concludes that Project TALENT has already had substantial impact on guidance procedures in the United States, and additionally, it has been utilized in the development of a system of computer-supported individualized education developed by the American Institutes for Research, Project PLAN.

Author: Flanagan, John C., et al.

Title: American Youth Seeks Employment

Source: The American High-School Student. Final Report.
Project TALENT, University of Pittsburgh;
Pittsburg, Pa., 1964

This analysis deals with work patterns of American youth one year after high school graduation. Data from a 1961 questionnaire addressed to the 1960 high school seniors who were tested for Project TALENT, found that 36 percent of both boys and girls were holding full-time jobs one year after graduation. Comparisons of different job patterns held by boys who had some college experience and those who had never entered college showed that the college-experienced group entered selling jobs to a greater extent. The non-college group entered the armed forces and engaged more frequently in electrical and mechanical jobs. Of this group, 14 percent were in the armed forces, 12.6 percent held unskilled labor jobs, 11.4 percent were in clerical and stock-checking jobs, and 11.2 percent were in electrical or mechanical jobs.

For both sexes the groups who had scored highest in verbal aptitude and reading comprehensions were found in white collar, health occupations, commercial art and recreation jobs.

Author: Flanagan, John C., et al.

Title: Five Years After High School

Source: Project TALENT Office, American Institutes for Research;
Palo Alto, California, 1971, 353 pp., $8.00

Some important career/educational implications derive from the five year follow-up of the sample of students interviewed in Project TALENT in 1960. Some of the findings most relevant to the Career Education Curriculum project are:

(1) Career choices made in high school are low in stability and realism. Only about one fifth of the students (excluding housewives) continue with the career they had planned in high school. However, in some fields, i.e., engineering and medicine, almost everyone who was continuing in the field had made that career decision in high school.

(2) Women showed greater persistence in completing their education, although fewer of them attend college. However, they are more likely than men to obtain their degrees in five years.

(3) College is particularly advantageous economically for girls. Women who went to college were earning $1,000 more per year than those who had not.

(See Flanagan, John C., and Jung, Steven M. for an annotation of the 10-year follow-up study, Progress in Education: A Sample Survey (1960-1970)).

Author: Flanagan, John C. and Jung, Steven M.

Title: Progress in Education: A Sample Survey (1960-1970)

Source: American Institutes for Research; Palo Alto, California, 1971, 28 pp. + appendices, $2.00

This study of a representative sample of 1970 high school juniors provided a basis for comparison with their 1960 counterparts tested extensively in the Project TALENT studies.

The authors interpret the findings as pointing to "an urgent need for the systematic development of educational programs to make major improvements in the quality of education. Specifically, studies of individual educational needs, systematic evaluations of plans and progress, and systems to manage educational improvement efforts should be implemented as soon as possible."

Some of the clues supporting these conclusions are shown in the more detailed findings. The instructional program has improved very little in quality and effectiveness, with nearly half the students feeling that they are learning only about half as much as they could with a more appropriate instructional system. The data suggested that there is also room for substantial improvement in guidance procedures and individual planning for educational programs, although 1970 students reported more fruitful discussions with counselors in formulating realistic occupational plans congruent to their own capabilities. The improvement seemed to be much more marked for boys than for girls, however.

Reading skills showed only a small amount of improvement in the 1960-1970 comparisons; students reported that they were working more, and studying less than they were in 1960.

Author: Frank, N. H.

Title: Summary Report of the Summer Study on Occupational, Vocational, and Technical Education

Source: Massachusetts Institute of Technology; Cambridge, Massachusetts, 1965, 16 pp.

This conference drew together a group of eminent scholars in a wide range of disciplines to confront the issues involved in revamping the whole approach to vocational preparation. The report proposes new patterns of "clinical education" starting at the junior high level that would provide shop-laboratory "learning by doing" situations cutting across the traditionally separate disciplines.

Some specific recommendations are:

(1) Curriculum materials should replace dependence on the written word with materials that utilize the potential of experimental and investigative activity as a springboard to acquire skills and ability to think.

(2) In-service and pre-service programs should be initiated to generate teacher competence.

(3) Special bridging curricula should aim at providing a wide variety of work-study programs with heavy community involvement.

Author: Friedman, Abram (Guest Ed.)

Title: Career Education: New Dimensions

Source: THRUST, 1972, vol. 1, no. 5, entire issue

The entire issue of this journal of the Association of California Administrators is devoted to career education. Authors of the various articles include Wilson Riles, California's Superintendent of Schools, Associate Commissioner of Education Robert Worthington, and Eli Ginzberg, manpower economist, career development theorist and critic of vocational guidance. The articles relate to making career education operational, in order to, as Editor Friedman says, "fulfill its promise of meeting career objectives by choice, and not by chance."

Ginzberg's analysis raises the question of the basic soundness of the career education reasoning. He argues that the very best education cannot assure students of successful career outcomes, since the economy is too complicated to react to such measures. In warning against the oversell of enthusiastic initiators of the new career education programs, he says, "The errors of successive Presidents in pleading with young people to remain in school on the assumption that a diploma would assure their long-term happiness and prosperity should not be repeated in a new form." He also feels that only the industry-based model under development by the Office of Education offers expectations of success.

Author: Gibson, Robert L.

Title: Career Development in the Elementary School

Source: Charles E. Merrill Publishing Co.; Columbus,
Ohio, 1972, 91 pp., paperback $1.95

This text and resource book focuses on the opportunities provided in the elementary school as a "laboratory for living" to develop children's attitudes, understandings, and adjustment techniques. Gibson emphasizes the need to help children perceive the interrelated roles of education as "preparation for life" and career as a "way of life." Another major task of the elementary school should be to provide occupational information and career-oriented experiences that fend off the all-too-frequent negativism that accompanies the child's progress through the elementary grades. The mix of information and experience is particularly important to avoid having the child "arrive at educational decision-making points knowing careers only in terms of job descriptions."

In discussing adjustment techniques, Gibson stresses that children should learn to get along with others, acquire decision-making skills, perceive possible consequences of their choices, and cope with failure in ways that do not blight future options.

Author: Ginzberg, Eli

Title: Career Guidance: Who Needs It, Who Provides It, Who Can Improve It

Source: McGraw-Hill Book Co.; New York, 1971, 356 pp., $7.95

Ginzberg has long been active in his attempts to redirect trends in career development and guidance. His early work in conceptualizing the developmental stages of career growth was important in reshaping theory. Ginzberg's critique of guidance for failing "to do any guidance, let alone career guidance," has aroused storms of rebuttal. Right or wrong, his views serve to bring the discussion of guidance out of the professional journals and into the arena of public debate.

Ginzberg is opposed to inserting vocational guidance into elementary programs on the fear that it will prematurely lock children into narrow occupational perceptions. Moreover, as a manpower economist he is more concerned that help be provided with adults who are mis-employed or unemployed. In addition, he describes the occupational literature now available for school use as "next to worthless."

Author: Ginzberg, Eli

Title: Toward a Theory of Occupational Choice: A Restatement

Source: Vocational Guidance Quarterly, 1972, vol. 20, no. 3, pp. 169-177

This article updates Ginzberg's concepts of occupational choice from his 1961 position that such decisions were irreversible after young adulthood. He now perceives vocational choice to be "a life-long process of decision-making in which the individual seeks to find optimal fit between his career preparation and goals and the realities of the world of work." His view that choice is now a matter of "dynamic optimalization" rather than "static compromise" is tempered by his recognition of major parental and educational constraints that still narrow the occupational horizons for minorities and women students. He argues that curriculum and guidance in the schools have not caught up with progress in the market place for these two groups, and that the educational system is contributing to faulty decision-making for them.

Author: Gooding, Judson
Title: The Job Revolution
Source: Walker & Company; New York, 1972, 231 pp., $7.95

This book thoroughly documents the extent to which worker attitudes are effectively causing a "job revolution." In an effort to assess the depth and causes of worker satisfaction or alienation with their jobs, Fortune Editor Gooding made an intensive study, interviewing hundreds of workers and management at all levels of the economy. He found the traditional work ethic, reinforced by the insecurities of depression years and the patriotism of World War II years, going by the boards, along with the paycheck as the carrot-before-the-worker's nose. Today's young workers are better educated, less submissive, and eager to find personal challenge and fulfillment in their jobs. Failures of management and/or unions to adapt to these concerns are bound to be reflected in high absentee rates, already a matter of national concern, and high rates of turnovers.

Gooding points out that this problem applies up and down the line, from managerial trainees to engineers to production line workers, is here to stay, and in fact, probably will intensify. Progressive management is reacting to this need by realizing that, "The quintessence of job enrichment in a manufacturing setting occurs when the worker can be given responsibility for an entire operation." He concludes, "The new socially oriented, people-concerned corporation will increasingly become the model of the 1970's."

Unions seemed more likely to be skeptical of job satisfaction as a motivating weapon, and clung to their adversarial view of management, along with insistence on pay rates as the barter weapon. Nonetheless, Gooding notes that the incoming group of young leadership within the unions may well be bringing to the bargaining table demands that do reflect this "job revolution."

Author: Goodson, Sylvia

Title: Occupational Information Materials in Selected Elementary and Middle Schools

Source: Vocational Guidance and Career Development (2nd ed.), J. Peters and C. Hansen (Eds.). The Macmillan Company; New York, 1971, pp. 236-242

Children's library books, as suggested by this 1967 survey of nine Atlanta school libraries, have shortcomings as sources of occupational information for elementary school children. Books were evaluated on standards set by the National Vocational Guidance Association for occupational information materials as well as grade level reading ranges.

Materials were criticized for providing dated, uneven and haphazard coverage both of occupational and reading level ranges. The preponderance of materials was aimed at a third grade level of reading ability; very little was available for older grades. Policemen, firemen, and secret service operatives are most frequently the subject of elementary occupationally-oriented books. Only about one-third of the books listed had been published in the past five years.

The author concludes that attractive factual materials describing a wide range of careers should be published for each grade level, and should be discarded at periodic intervals as they become obsolete.

Author: Goodwin, Barbara and Norris, Eleanor L. (Eds.)

Title: Career and Occupational Development Objectives

Source: National Assessment of Educational Progress;
Denver, Colorado, 1971, 75 pp., $1.00

These career and occupational development learning objectives represent a consensus of panels as to the standards by which children's educational progress can be judged at four progressive age levels. The National Assessment of Educational Progress, in developing standards for assessing educational progress in ten major subject areas, requires that objectives set by experts in a specific field be subject to rigorous review by panels of educators and lay members to insure that resulting test programs are academically and educationally sound and are non-trivial in the eyes of the community.

Vocational education was specified as one of the ten original subject areas, but much as the Office of Education has moved to the new and broader nomenclature of "career education," the NAEP expanded the subject area to define it as "career and occupational development."

The report recognizes that the career and occupational development field is unique in that the objectives are not the educational goals of any one school subject. Moreover, the NAEP goals are for the population as a whole, not any subgroup, such as those who have completed a particular training program. Hence the major emphasis is on accurate self-evaluation, thoughtful career planning, realistic attitudes toward work, employment-seeking skills, effective work habits, and the development of skills generalizable to a variety of occupations.

Author: Gysbers, Norman C. and Moore, Earl J.

Title: Career Guidance: Program Content and Staff Responsibilities

Source: American Vocational Journal, March 1972, vol. 47, no. 3, pp. 60-62

The authors reject the traditional career guidance approach with its emphasis on diagnoses and prescription. They suggest that a more efficient and realistic way would be a needs-assessment, goal-setting approach. This would broaden the operation of guidance programs to involve all levels of education. Using this approach there would be a development of career consciousness at all grade levels in the specific domains of (1) self knowledge, (2) work and leisure, (3) career planning, and (4) career preparation.

It is suggested that the school guidance staff be given the responsibility of implementing such programs but it is emphasized that success will depend on cooperation from all educators and the community.

Author: Hamilton, Jack A. and Webster, William J.

Title: Occupational Information as an Integral Strand in the PLAN Social Studies Curriculum

Source: Paper Presented at the American Educational Research Association Convention; Minneapolis, Minnesota, March, 1970, 16 pp. (ERIC ED 038 666; MF $ .65, HC $3.29)

In describing how occupational information is incorporated into the economics strand of the Project PLAN social studies curriculum, this paper provides an example of how PLAN carries out its goal of assisting young people to explore and reach tentative decisions about long range occupational goals. The economics strand of PLAN comprises approximately 30 individualized learning units. They are subdivided into appropriate grade level materials. The primary grades present an introduction to the world of work, the intermediate grades emphasize practice in decision making, and the secondary level concentrates on career exploration and more specific planning for post-secondary roles.

Author: Hamilton, Jack A. and Webster, William J.

Title: Occupational Information and the School Curriculum

Source: Vocational Guidance Quarterly, 1971, vol. 19, no. 3, pp. 215-219

This article describes the methodology by which Project PLAN builds into the curriculum individualized opportunities to acquire occupational information as ground work for setting goals and making career-relevant decisions.

The program recognizes important choice points along the educational continuum at which the student makes choices, for instance between college or non-college programs, or between specific training programs.

The materials produced for grades 1-4 incorporate approximately 20 instructional objectives into regular social studies learning units that also involve varieties of materials drawn from economics. A system of broad occupational families is presented in the intermediate grades (5-8). These 12 occupational families, derived from Project TALENT studies, are: (1) engineering, physical science, mathematics, and architecture; (2) general, community service, public service; (3) medical and biological sciences; (4) business-clerical; (5) business administration; (6) construction trades; (7) general teaching and social service; (8) mechanics, industrial trades; (9) humanities, law, social and behavioral sciences; (10) business, sales; (11) fine and performing arts; and (12) technical jobs.

The student-selected and data-suggested long-range goals are then utilized in designing an individual program of studies for each student. Activities related to these goals are provided during secondary school years.

Author: Hansen, Lorraine Sundal

Title: Career Guidance Practices in School and Community

Source: National Vocational Guidance Association; Washington, D.C., 1970, 188 pp., $3.50

This book surveys the explosion of programs in school and community focusing on career development and guidance. Based on ERIC data, it opens with a general discussion of theory and trends in career development. Separate chapters describe programs of sequential nature, programs integrating school-community resources, guidance programs utilizing advanced media and technology, and guidance and vocational education. A final chapter delineates the overall issues and concerns for the future.

Highlights of the discussion of changes predicted for the use of occupational information are:

(1) greater emphasis on the needs of women, the culturally disadvantaged and minority groups;

(2) more vertical usage of such information up and down the grade level structure;

(3) better balance of psycho-social and economic information;

(4) more information on the world of "non-work"--hobbies, leisure time activities, part-time and volunteer work;

(5) more frequent revision to keep information current; and

(6) more emphasis on clusters or families of jobs.

Author: Hansen, Lorraine S. and Borow, Henry

Title: Toward Effective Practice: Emerging Models and Programs

Source: Career Guidance for a New Age, Houghton Mifflin
Co.; Boston, 188 pp., in press

The task of presenting a unified view of the surge of development in career education and guidance programs is undertaken in this analysis and synthesis of concept and practice in emerging programs.

The major shift in theory is described as the swing away from occupational choice as a single decision to a developmental concept toward vocational maturity, as conceptualized by Super and others. Thus, current efforts reflect a new concern "to promote occupational awareness and a sense of planfulness." Hansen and Borow delineate the strategies that are emerging in these new programs as: (1) understanding of the "serial" nature of careers; (2) exploratory experiences by which the individual samples occupational life; and (3) the notion that occupational decisions involve not merely a choice between job duties or earnings but bewween alternative life styles as well.

Some capsulated information is provided on 10 new programs, models, and materials, including the school-based model of the Office of Education; New Jersey Career Development Project; North Dakota Exemplary World of Work Project; Detroit's Developmental Career Guidance Project; Project BEACON, Rochester, New York; Career Development Curriculum Guide, Texas; Senesh, Our Working World, Work Books; Experience/Career Exploration Program, Minneapolis; Wyoming Comprehensive Occupational Education Program; and Vocational Exploration Group.

Author: Hayes, John

Title: The Role of Occupational Information in Career Guidance

Source: The Theory and Practice of Vocational Guidance,
B. Hopson and J. Hayes (Eds.), Pergamon Press;
Oxford, 1968, pp. 435-445

Hayes interprets ways in which occupational information can and should broaden the limited occupational horizons of students, particularly those in lower socio-economic groups, and yet not lose touch with reality. Lower socio-economic groups are in need of information that will alert them to occupational possibilities that even as university students they may not consider.

However, he cautions that occupational information must be rooted in reality. Students are often misled by the glamorized occupational vistas of the mass media, and also by the recruiting-type job brochures. Hayes points out that glamorizing the job is a costly mistake, since disenchanted employees leave after expensive training. He concludes that "realistic occupational information will not, as many employers fear, necessarily make a job unattractive, but it will go a long way to ensuring that only the right sort of people are attracted in the first place, and that unsuitable candidates will be disillusioned before they commit themselves."

To back up this conjecture, Hayes quotes data from an occupational survey in Leeds which found that over 50 percent of all job changes among young people resulted from the job not matching expectations.

Author: Herr, Edwin L.

Title: Review and Synthesis of Foundations for Career Education

Source: ERIC Clearinghouse on Vocational and Technical Education, Information Series No. 61, U. S. Government Printing Office; Washington, D.C., 1972 (ERIC ED 059 402; MF $.65, HC $6.58)

This ERIC publication synthesizes the major historical, philosophical, and theoretical concepts associated with career education.

Its purpose is not to analyze current career education models now under development but to provide in-depth background that will clarify assumptions and beliefs for administrators who are planning new programs. Individual chapters review literature on "statement of the problem," "historical and philosophical bases," "current social observers," "legislative inputs," "current program assumptions and objectives," and "theoretical bases."

Herr concludes that general research needs exist in the following areas: (1) ways to provide students of different characteristics with more specific information about various types of work; (2) ways to reinforce the relationship between course content and job requirements; (3) ways to combine particular educational media with learning styles; (4) means to determine how community and industrial resources can contribute to attainment of student career goals; (5) comparisons between the career maturity of students who have had work experience with those of students who have not worked; (6) identification of factors which may hinder economically disadvantaged youth in acquiring skill mastery, attitude development, and achievement motivation; (7) ways to accommodate individual differences in apprenticeship training; (8) inventories of legal and legislative constraints as well as union restrictions which hamper large-scale participation by students in work experiences; (9) more intensive research on early childhood learning; and (10) more intensive research on how students think and make decisions about careers.

Author: Herr, Edwin L. and Cramer, Stanley H.

Title: Vocational Guidance and Career Development in the Schools: Toward a Systems Approach

Source: Houghton Mifflin Company; Boston, 1972, 356 pp., $9.95

In this new book, Herr and Cramer postulate a systems approach for vocational guidance that integrates the totality of educational constituencies, including the student, teacher, counselor, administration, and the community, as well as the additional components of methodology and resources.

This approach necessitates taking cognizance of each constitutency within the systems framework. Individual chapters emphasize the historical background and future orientations. In one chapter dealing with vocational guidance in the elementary school, the authors point out that "levels of aspiration, achievement motivation, and perceptions of self as worthy or unworthy have their genesis in the early years of the family and schooling."

Author: Hill, George E. and Luckey, Eleanore Braun

Title: Guidance for Children in Elementary Schools

Source: Appleton-Century Crofts; New York, 1969, pp. 346-388

This publication presents the rationale for including career education in the elementary curriculum. The authors posit some basic propositions in support of vocational emphasis in the early school years.

(1) The processes of growing up, and of meeting the developmental tasks of childhood, entail many understandings and attitudes that have occupational significance and meaning.

(2) The processes of identification with adult models who have a strong effect upon the development of their sense of occupational identity begins early in life and persists throughout the elementary school period.

(3) The child develops conceptions of himself and these self-concepts have a profound effect upon his vocational development.

They also discuss the attitudinal development in children toward the status of various occupations, the need to help children plan for a life in which occupational change is to be expected, and the influence of life styles on occupational choice.

Their conclusion is that the social studies curriculum provides the best entry to occupational understanding in the early school years. An annotated bibliography of research and practical materials is included at the end of the chapter.

Author: Hobson, Barrie and Hayes, John (Eds.)

Title: The Theory and Practice of Vocational Guidance; A Selection of Readings

Source: Pergamon Press; Oxford, 1968, 523 pp., $14.00

This anthology combines theory with how-to advice that is applicable to American readers as well as to the British audience on whom it focuses. The theoretical approach to occupational choice emerged, the editors hold, "from distressingly bare cupboards" in the early fifties when Ginzberg, Super, Tiedeman, Holland, Hilton, and others began to examine the phenomenon of occupational choice in all its complexities. These theorists are all represented in Part I, plus other scholars who discuss occupational choice and the economic, sociological, psychological and decision-theory implications that derive from it.

Part II relates the practical issues involved in putting vocational counseling, "careers" courses and other career-related activities into British schools.

Author: Holland, John L.

Title: The Psychology of Vocational Choice

Source: Blaisdell Publishing Co.; Waltham, Massachusetts, 1966, 132 pp., $2.50

This reference describes Holland's work in developing a theory of vocational choice which stresses the importance of personality patterns in finding congruence between the individual and the work environment.

Holland holds that people can be characterized according to their resemblance to one of six personality types--realistic, intellectual, social, conventional, enterprising, and artistic--and in counterbalance is the relevance of the individual's personality profile to similar characteristics reflected in the work environment. The pairing of persons and environments can lead to predictable outcomes of vocational satisfaction, stability, and achievement.

Author: Holland, John L.

Title: A Theory-Ridden Computerless Impersonal Vocational Guidance System

Source: Journal of Vocational Behavior, 1971, 1, pp. 167-[illegible]6

This article is a description of the Self-Directed Search for Educational and Vocational Planning (SDS). This is a self-administered, self-scored and self-interpreted vocational counseling tool developed by the author.

It is described as inexpensive and practical. SDS has two main purposes: a) to provide a vocational counseling service for people who do not have access to professional counselors; and b) to increase the number of people a counselor can serve. SDS takes 30-50 minutes to complete and simulates what a person and counselor do in an interview.

Holland describes the development and evaluation of SDS and discusses possible uses.

Author: Hoppock, Robert

Title: Occupational Information: Where to Get It, and How to Use It In Counseling and Teaching (3rd. ed.)

Source: McGraw-Hill Book Co.; New York, 1967, 598 pp., $9.50

This text is designed to give practical help to counselors, psychologists, teachers, and administrators who work in the general area of career guidance. It provides background on theory but is mostly focused on the sources and uses of occupational information.

Author: Houpt, Gary G.

Title: Strategies for Teaching English in Career Education. Final Report

Source: Delaware State Department of Education; Dover, Del., 1971, 142 pp. (ERIC ED 059 404; MF $.65, HC $6.58)

This conference report documents seventeen teaching strategies for use in career education programs within secondary school English programs. In general, the focus is on improving communication skills and content. The strategies list goals, instructional objectives, content, activities, evaluation materials, and bibliographies. A general annotated bibliography is also included.

Author: Hoyt, Kenneth B., et al.

Title: Career Education: What It Is and How To Do It

Source: Olympus Publishing Company; Salt Lake City, Utah, 1972, 250 pp., $4.00

This is one of the early books to focus on the change which career education portends for the whole structure of American education. It discusses the concepts and components of career education and its implications for: (1) revamping teacher and administrator training and attitudes; (2) individualizing instruction; (3) opening up the learning environment; and (4) providing new curricular approaches that will build career orientation into every subject at every grade level.

Author: Illich, Ivan

Title: Deschooling Society

Source: Harper & Row, Publishers; New York, 1970, 186 pp., $1.25

This book is critical of the current status of education on both a national and international level. The author contends that the world needs other ways to learn and teach. The present reliance on specialized and full time instruction has been costly, inefficient and destructive. Education today is described as a bureaucracy which divides social reality and is instrumental in perpetuating inequality of opportunity and promoting false values.

The author proposes eliminating our present educational system and replacing it with a system of self-motivated learning, centered on a "life of action" rather than a "life of style." Illich's system would have three purposes: (1) it would provide all who want to learn with access to available resources at any time in their lives; (2) empower all who want to share what they know to find those who want to learn from them; and (3) furnish all who want to present an issue to the public with the opportunity to make their challenge known.

The author states that all the resources for the new educational system are found in things, models, peers and elders. To provide access to these resources, the author suggests that four networks be set up: (1) a reference service to educational objects; (2) skill exchanges; (3) peer-matching service; and (4) a reference service to educators-at-large. The author contends that this system of deschooling will restore the true meaning and purpose of education which is to facilitate the learner.

Author: Jacklin, Carol, et al.

Title: As the Twig is Bent: Sex Stereotyping in Elementary Readers

Source: Department of Psychology, Stanford University;
Stanford, California, 1972, 17 pp. + appendices

This study corroborates the view that sex-stereotyping indoctrination is firmly embedded in elementary school reading programs. The kindergarten-grade 3 reading series of four major publishers, including the California state-approved series, were examined to identify the roles played by both sexes. They found that the adult woman was portrayed in the home, sometimes teaching, and occasionally as a nurse -- but never as a doctor, bank teller, or aviator. Males played aggressive, result-producing roles, while women played passive or supportive ones. Moreover, Dr. Jacklin found, the tendency to role stereotyping increases by grade levels.

Author: Jones, G. Brian, et al.

Title: Development and Evaluation of a Comprehensive
Career Guidance System. Final Report

Source: American Institutes for Research; Palo Alto,
California, 1971, 268 pp.

This report covers the goals and operations of the computer-supported Comprehensive Career Guidance System (CCGS), a systematic approach to develop and evaluate guidance-oriented objectives and instructional and counseling experiences.

The approach involves 5 types of activities: (1) identification of youth development needs; (2) classification of objectives by commonalities and priorities; (3) specification and selection of all possible alternative strategies for individualized programs; (4) design, scheduling, and implementation of selected strategies; and (5) evaluation and feedback of the efficiency and effectiveness of designed programs. The ultimate goal of the program is seen as providing a comprehensive data bank of behavioral objectives, each keyed to a variety of appropriate instructional, counseling, and evaluational materials and procedures available for student, parent, counselor and teacher use.

Author: Jones, G. Brian, et al.

Title: A Comprehensive Career Guidance System in Action

Source: Career Education and the Technology of Career Development. Proceedings of the Eighth Invitational Conference on Systems under Construction in Career Education and Development. American Institutes for Research; Palo Alto, Cal., 1972, pp. 117-129

This chapter describes a computer-supported Comprehensive Career Guidance System (CCGS) developed by the staff of the American Institutes for Research to provide an individualized system of providing students with information and assistance in formulating life goals.

Five types of activities comprise the systems approach to the development, implementation, and evaluation of objectives-based programs in the Comprehensive Career Guidance System. The first step--identification of needs--was undertaken in a needs assessment survey for the guidance department of the San Jose Unified School District. The next step -- development of objectives -- covered vocational, educational, personal-social, learning-to-learn, social responsibility development, and leisure needs. The other sequential components of the systematic approach are the specifications of alternative strategies, implementation, and evaluation.

The ultimate desired outcome is to have available for guidance personnel an exhaustive catalog of empirically-validated instructional and counseling strategies keyed to behavioral objectives and cross-indexed with youth characteristics, needs, and personnel situations.

Author: Kaback, Goldie

Title: Occupational Information for Groups of Elementary
School Children

Source: Vocational Guidance Quarterly, 1966, vol. 14,
No. 3, pp. 163-168

The author discusses the most appropriate ways to introduce job information for different age groups of elementary school children. She notes that younger children are more interested in the actual work performed, so that information should address the specific job. Older children can absorb information on the complexity of the world of jobs, their interrelationships, prerequisites, advantages and disadvantages.

Author: Katz, Martin

Title: A Model of Guidance for Career Decision-Making

Source: The Vocational Guidance Quarterly, 1966, vol. 15,
No. 1., pp. 2-4

The author has developed a model of guidance for career decision-making which he states will help bridge the gap between theory and application. His model combines three systems of data -- a value system, an information system, and a prediction system. This statistical model assists the student in recognizing cultural and personal values and their relationship. It also allows him to evaluate options he may select. The last step involves assembling of predictive data which may be relevant to student decisions.

Author: Kratochvil, Daniel W. and Thompson, Lorna J.

Title: The Cluster Concept Program Developed by the University of Maryland Industrial Education Department

Source: American Institutes for Research; Palo Alto, California, 1972, 70 pp. (ERIC ED 064 526; MF $.65, HC $3.29)

This report describes the Maryland Cluster Concept Program for preparing individuals to enter a spectrum of occupations. Three clusters of occupations are included: construction, electro-mechanical installation and repair, and metal forming and fabrication. It is aimed at providing entry level skills for students in eleventh and twelfth grade who want to seek some occupational preparation for a range of related occupations.

Author: Law, Gordon F. (Ed.)

Title: Contemporary Concepts in Vocational Education

Source: American Vocational Association, First Yearbook of the American Vocational Association; Washington, D. C., 1971, 435 pp., $8.50

The publication of this first yearbook marks a step by the AVA to consolidate the complex issues and viewpoints involved in the new concern for vocational/career education. It contains 59 articles by vocational teachers, researchers, and administrators, and covers such topics as accessibility and equal educational opportunity, accountability, cost-benefit analysis, systems planning, performance objectives, and vocational horizons for the disadvantaged.

It also includes the cornerstone speech of former Commissioner of Education Marland, which launched the career education thrust of the federal government. Speaking before the National Association of Secondary School Principals in January, 1971, he pledged the full commitment of the Office of Education to the goal of having every young person complete 12th grade with marketable skills or prepared to enter higher education. Recognizing the magnitude of the task, Marland proposes some interim as well as long-range strategies directed toward achieving this goal.

Author: Levin, Henry M., et al.

Title: The Costs to the Nation of Inadequate Education

Source: Report to the Select Committee on Equal Educational Opportunity; U. S. Senate, 1972, 65 pp. (ERIC ED 064 437; MF $.65, HC $3.29)

This study documents the lost income to the nation incurred by failure of young men to complete a high school education. Based on data from the Department of Commerce and other sources, the report estimates the total costs to be 237 billion dollars over the lifetime of these men, of which 71 billion dollars is considered to be foregone government revenues. Had these young men completed their high school educations, the educational costs to the nation would have been only about 40 billion dollars. In addition, the cost of supplying welfare to this group is estimated to be about 3 billion dollars per year, and another 3 billion yearly is estimated to be the cost to the nation in crime related to inadequate education.

Author: Lewis, James L., Jr.

Title: Administering the Individualized Instruction Program

Source: Parker Publishing Co.; West Nyack, New York, 1971, $15.00

This guide to the administration of individualized instruction contains material on the development and evaluation of behavioral and attitudinal objectives for use in the classroom. Lewis warns teachers against stating objectives in terms that cannot be verified, e.g., "to understand," "to appreciate," or "to realize." He presents a chart which supplies terminology for use in writing objectives that are verifiable in terms of seven major thought processes.

Author: Life Reporting Staff

Title: Boredom Spells Trouble on the Line

Source: Life, 1972, vol. 73, no. 9, pp. 30-41

This Life article treats an increasingly important problem in industry: job boredom. Interviews with young and veteran assembly line workers point up the age difference in attitudes. The young, better-educated workers have greater expectations and believe that a job should do more than pay well; it should be interesting. The article points out, "Much of the fear of being unemployed has disappeared, along with the notion that hard work is a virtue in itself." Job monotony is a particular problem in assembly line production, and although automobile management and labor have experimented with ways of countering boredom, the basic problem remains: it is a nondemanding, repetitive job. Estimates are that 75 percent of assembly line jobs can be learned in 1 1/2 hours.

This problem has significance not only for management and labor but also for the educational system. The schools help students approach such jobs with understanding of their realities, so that they can trade off high wages against monotony, and perhaps, most important of all, have the resourcefulness to find life satisfaction outside working hours.

Author: MacMichael, David C.

Title: Career Education--Prognosis for a Policy (Research Memorandum)

Source: Stanford Research Institute; Menlo Park, California, 1971, 76 pp., available on request
(Prepared for the National Center for Educational Research and Development, U.S. Office of Education)

The Office of Education commissioned this analysis of remediation of the problems of youth unemployment and alienation with particular reference to the effectiveness of career education as a remediative policy within the context of alternative futures.

Perceiving the roots of these problems as lying primarily in socioeconomic arenas, MacMichael concludes that schools are not "importantly responsible," and cannot themselves resolve the problems. Nevertheless, in all possible futures, schools can play an important role, "one that primarily socializes youth to function in the world of work and secondarily familiarizes them with it." He recommends that career education should seek to improve guidance and placement capabilities of schools, and should look outside the school system to provide occupational training facilities. One warning MacMichael issues is that career education should be alert to "the danger that requiring work reexperience and development of 'positive' attitudes toward work could lead to establishment of compulsory work programs that might increase student alienation and resistance."

Author: McCandless, Boyd R.

Title: The Self Concept

Source: Children: Behavior and Development, McCandless, B. R. (2nd edition). Holt, Rinehart, & Winston, Inc.; 1967, pp. 253-293

McCandless reviews the literature on the concept of self, which he describes as "a set of expectancies, plus evaluations of the areas or behaviors concerning which these expectancies are held." Despite the complexity of the concept, he finds that research has been limited, for the most part, to the single strand of good-bad, or positive-negative dimension. He suggests that important areas in which research should be expanded are complexity and breadth, congruency and accuracy, consistency, flexibility, and self-acceptance.

Author: McMurrin, Sterling M. (Ed.)

Title: Functional Education for Disadvantaged Youth

Source: Committee for Economic Development, Supplementary Paper No. 32; New York, 1971, 120 pp., $3.00

These papers, commissioned as background for the Committee's report on urban education, were published under separate cover. Project Director McMurrin uses the foreword to set the tone of broad overall concern that the goals of "functional" (career) education are to provide every student with occupational opportunities that will provide employment options at all levels of ability.

Garth Mangum contributes a paper which outlines ten specifics of an overall approach to this kind of education. He cites the importance of both the elementary and junior high school as starting points.

The first tenet, that the elementary school should provide students with realistic pictures of the world of work, is discussed in terms of broadening this process to develop occupational awareness of disadvantaged children. The ghetto child needs essential knowledge that his home and neighborhood may not supply and he needs experiences that are broader than the verbal approaches that work in middle-class school situations. Mangum lists 3 points as basic knowledge requirements for ghetto elementary children: (1) work will be a primary source of income; (2) the range of employment opportunities is vast; and (3) each child will be required at some point in the future to make an occupational choice and prepare for it.

Mangum views the junior high school as the locus for a more sophisticated stage with the objective of exposure to the full range of occupational choices, and full knowledge of the relative advantages and requirements of each. Unlike the college-bound student, the disadvantaged child does not see the relevance of the curriculum. Mangum comments that most dropouts which occur in high schools are probably foreordained when these students are in junior high and elementary schools. Therefore, the curriculum has an even greater challenge to expose the student to the tie between school and later occupational opportunities.

Author: Maccoby, Eleanor E. and Zellner, Miriam

Title: Experiments in Primary Education: Aspects of Project Follow-Through

Source: Harcourt Brace Jovanovich, Inc.; New York, 1970, 132 pp., $2.95

This report reviews and compares the psychological and pedagogical assumptions underlying ten Follow-Through programs. Its special significance for career education lies in its analyses of the issues and problems of adopting the new program into the existing school framework. The authors found that the directors of the intervention programs concurred in assigning equal importance to the understanding of the processes of institutional change as to the processes of successful instruction.

Chapter Seven, "Working with Teachers and School Systems," emphasizes that effective strategies must insure that teachers are fully involved and have full understanding of the program's philosophies and of its detailed objectives.

Author: Mager, Robert F. and Pipe, Peter

Title: Analyzing Performance Problems or "You Really Oughta Wanna"

Source: Fearon Publishers; Belmont, California, 1970, 111 pp., $4.95

This book deals with the application of analysis skills to problems of "performance discrepancies," i.e., of problems arising because students, workers, or children are not doing what the adult or employer thinks they "should wanna do." The rationale is to look for solutions related to the cause of the problem, rather than fulminate against the recalcitrance of the individual. It explains a procedure for analyzing such problems and points the teacher, parent or employer in the direction of workable solutions.

Author: Marland, Jr., Sidney P.

Title: Career Education Now

Source: Contemporary Concepts in Vocational Education, F. Law (Ed.). American Vocational Association, First Yearbook of the American Vocational Association; Washington, D. C., 1971, pp. 41-49

Former Commissioner Marland's presentation to the National Association of Secondary School Principals announced the mobilization of Office of Education resources in the massive career education endeavor. The cornerstone of the effort is to revitalize the total school experience so that every child graduates from secondary school qualified for higher education or useful and rewarding employment. Marland admonishes the educational community for having provided inadequate "educational pap" for the students in the No Man's Land of general education, and he establishes a goal of a "new educational unity" that blends academic and career preparation. He pledges the financial and leadership support of the Office of Education to help states move present programs in vocational education "away from disproportionate enrollments in low-demand occupations to those where national shortages exist and where future national needs will be high, such as computer programmers, laser technicians, people in health and environmental industries."

He also speaks to the need of providing more flexible options for high school graduates, involving business, industry and labor in a cooperative effort, and to build at all levels--federal, state, and local--the leadership to carry through with this commitment to career education.

Author: Marland, Sidney P., Jr.

Title: Voices from the Real World

Source: Speech before the Council of the Colleges of Arts and Sciences; Washington, D. C., November 10, 1972

This address relates the federal emphasis on career education to the role of undergraduate liberal arts colleges. Pointing out that client disaffection, financial problems, and declining enrollments are all signals of the need for substantive change in higher education, Marland urges four-year colleges to step up their provisions for continuity of career education programs initiated in high schools. However, he underscores a pledge that, "By responding to the impetus for career education, the liberal arts college will not make itself something less but rather something more."

The remainder of the speech delineates the efforts of the Office of Education to involve postsecondary education in career preparation. These efforts encompass: (1) a national dialogue, generated through a series of 16 major regional conferences held in Spring of 1972; (2) conferences held for deans of 75 major schools of education to explore ways of introducing career education into teacher preparation; these conferences in turn generated workshops for professors of educational administration to develop training opportunities for school administrators; (3) research on career education models, now being installed in schools and training centers; (4) the development of model K-12 systems in each state with Office of Education support; (5) creation of a Deputyship for Occupational Adult Education in the Office of Education; and (6) the enactment in the Education Amendments of 1972 provisions for state post-secondary education commissions to receive proposals for occupational education programs from community and four-year colleges. Marland pledges "all the leverage" of his office to obtain maximum funding for these provisions. He reports that $10 million will be available for establishing a special program for post-secondary innovation and reform in higher education, including career education-type initiatives.

Author: Melnotte, Judith M., et al.

Title: A Study of the Operational Feasibility of the Apprenticeship Work-Study Program for Multi-Site Tryout and Evaluation. Final Report

Source: American Institutes for Research; Palo Alto, California, 1972, 79 pp., $2.47

Implications for large-scale projects providing reality-based apprentice-type training programs for new personnel in educational research and development are discussed in this report. A pilot program developed by the American Institutes for Research to train unemployed aerospace scientists to transfer their careers was evaluated to provide insights into the feasibility of testing that model on a larger scale. Among the key questions investigated were apprentice achievement, apprentice reactions, reactions of the host institution, the generalizable nature of the model; and selection procedures. The report also discusses other types of models that might be utilized; these are the independent training model, the adjunct model, and the in-service model.

Author: Millstein, Eugene J., et al.

Title: Development of an Apprenticeship Work-Study Program Model for the Cross-Training of Physical Scientists for Work in Educational Research and Development. Final Report

Source: American Institutes for Research; Palo Alto, California, 1972, 105 pp., $3.12

This report describes a model for training personnel for jobs in educational research and development by an intensive short-term program at the American Institutes for Research. The program to train professionals to transfer their careers featured individualized learning and "real-time" experience on actual research and development projects. An individual set of objectives was determined for each trainee. The report concludes that "evidence from the pilot tests suggests that the (cross) training model is effective, efficient, and appealing to both employers and trainees."

Author: Moore, Earl J. and Gysbers, Norman C.
Title: Career Development: A New Focus for Education
Source: Educational Leadership; 1972, vol. 30, no. 3

This article defines career education in the context of personalizing education to make it meaningful as a way of describing and understanding total human development. They include three charts showing how traditional and career education differ in: (1) educational processes and activities; (2) values and attitudes of educators; and (3) student involvement and responsibility.

However, Gysbers, who heads the federal project at the University of Missouri to provide leadership for the states in implementing career guidance programs, and Moore both realize that career education has far to go before these sweeping goals are realized. They note that, "Unfortunately, many programs that are now being organized around career development concepts are really traditional education programs in disguise. Typically, such programs emphasize only the world of work in the abstract; students are taught about occupations." Other programs turn to the rapidly proliferating multi-media arrays of commercial materials which, the authors warn, "unfortunately are seen as ends in themselves rather than more properly as means to an end."

Author: Morgan, Robert L., et al. (Eds.)

Title: Synopses of Selected Career Education Programs: A National Overview of Career Education

Source: National Center for Occupational Information; Raleigh, N.C., 1972, 77 pp., available on request

This report presents thumbnail sketches of 39 career education programs prepared by the individual project directors. These represent the programs selected for site visits by teams of consultants and staff of the National Center for Occupational Education. They are listed by 9 geographical regions.

For the final selection of the 15 outstanding career education programs, see a report in D & R Report, 1972, volume 2, no. 1, page 12. The districts operating the top programs are Mid-Hudson Career Development and Information Center, Beacon, N.Y.; Anne Arundel County Career Development Program, Annapolis, Md.; Cobb County Occupational and Career Development Program, Marietta, Ga.; New Albany (Miss.) School District; Kershaw County School District, Camden, S.C.; Knox County Schools, Knoxville, Tenn.; Pontiac (Mich.) City Schools; Toledo (Ohio) City Schools; Lawrence (Kans.) Unified School District No. 497; Holyoke (Colo.) Schools, District RE-IJ; Helena (Mont.) Public Schools; Ceres (Cal.) Unified School District; Lebanon (Ore.) Union High School District 1; Springfield (Ore.) Public Schools; and Renton (Wash.) School District No. 403.

Author: Morton, Herbert C.

Title: Jobs for Youth

Source: Background Papers Prepared for 1970-71 White House Conference on Children and Youth, Subcommittee on Executive Reorganization and Government Research, U.S. Government Printing Office; Washington, D.C., 1971, pp. 139-172

This paper was one of a series of background papers prepared for the White House Conference on Youth of 1971. It documents the social and economic costs of the growing teenage unemployment problem. The paper analyzes the connection between poor preparation of youth for holding meaningful jobs and the high rates of unemployment among disadvantaged and minority youth.

Of particular interest is the set of statistics projecting job openings for the 1970's, prepared from Bureau of Labor Statistics figures. These figures document high growth expectations for the following fields:

	% Change, 1968 to 1980
Systems analyst	183%
Electronic computer operating personnel	129%
Programmer	129%
Pilot and co-pilot	117%
Dental hygienist	109%
Medical laboratory worker	90%
Oceanographer	85%

At the other end of the opportunity scale, openings are lowest (or negative) for the following occupations:

	% Change, 1968 to 1980
Farmworker	-33%
Printing: Compositor and typeset	-5%
Elementary School teacher	3%
Gasoline service station attendant	8%
Inspector (manufacturing)	8%

Author: Myers, Roger A., et al.

Title: Educational and Career Exploration System: Report of a Two-Year Field Trial

Source: Teachers College, Columbia University; New York, 1972, 124 pp.

This report evaluates the two-year testing of the Educational and Career Exploration System (ECES), a computer-based learning project developed at the Advanced Systems Development Division of the International Business Machines Corporation. The goal of ECES was to create a system which would influence the development of factors of vocational maturity: choice making, resource use and self-concept implementation rather than efficiency of occupational choices.

Tests were conducted in Montclair, New Jersey, and on a larger scale in Genesee County, Michigan. Evaluation was carried out by a team of psychologists from Teachers College. Although initial trials showed an increased awareness of the importance of decision-making skills on the part of the students, they did not succeed in extrapolating improvement in these skills. Consequently a Counselors' and Students' Guide to Career Decision Making Skills (DMS) was added the following year. The combined ECES-DMS program did produce significant gains in career decision-making skills and in planning attitudes and insights. The acceptance of ECES as a valuable instrument by both students and parents leads the authors to conclude that use of an ECES, supplemented by a systematic plan for counselor activity, will provide the likelihood that the original goals will be realized.

Author: National Advisory Council on Vocational Education

Title: 5th Report; June, 1971
6th Report; June, 1972

Source: National Advisory Council on Vocational Education; Washington, D. C., 1971/1972, 7 pp. (1971), 9 pp. (1972), available on request

The first of the National Advisory Council to the Commissioner of Education's two most recent reports charges the leadership in the country's educational establishments with "bankruptcy" for their failures to carry out the wishes of the Congress in implementing the vocational education legislation. The next report, June 1972, lashes out at the "shaky and shabby" status of counseling, although the Council does exonerate the counselors themselves as the victims of leadership failures in all sectors of the community, including school administrators, parents, state departments of education, business and industry.

Among their list of needed reforms are: (1) restructuring counselor education programs, both preservice and inservice, to bring counselors closer to work experiences; (2) making career development programs an integral part of career education, both in legislation and operating systems; and, (3) increasing efforts to provide effective counseling and guidance for the handicapped, minority and disadvantaged students, as well as veterans, adults, etc.

Author: National Center for Educational Research and Development

Title: New Thrusts in Vocational Education

Source: National Center for Educational Research and Development, U. S. Office of Education; Washington, D. C., 1972, 35 pp. (ERIC ED 059 374; MF $.65, HC $3.29)

This report describes five innovative vocational education programs considered to be functioning effectively in response to a local problem. These are:

(1) An Industrial Arts Curriculum which has been in operation in 300 school districts in 50 states. It is a two-year program stressing theory, operations, and the necessity of utilizing modern production methods;

(2) A vocational home economics program for disadvantaged youth designed to prepare students for dual roles of wage earner and homemaker;

(3) A Work Opportunities Center designed to teach job skills, personal development and basic education;

(4) Project ABLE - an individualized instruction program; and

(5) An experimental program adapting Air Force training courses and methods to public school situations.

Author: National Vocational Guidance Association

Title: Report of the Invitational Conference on Implementing Career Development Theory and Research Through the Curriculum

Source: National Vocational Guidance Association; Washington, D. C., 1966, 194 pp., (ERIC ED 010 182; MF $.36, HC $8.20)

To address complaints that the field of career development has lacked communication between theorists and practitioners, the NVGA called a conference to discuss ways of moving theory into the world of reality. The papers address a wide range of topics, such as strategies for curriculum change, the meaning of work in an age of affluence, work and the productive personality, and the role of the guidance counselor.

Author: Norris, Eleanor L. (Ed.)

Title: Citizenship Objectives

Source: Committee on Assessing the Progress of Education; Ann Arbor, Michigan, 1969, 57 pp., $1.00

The National Assessment is an ongoing program designed to evaluate educational achievements of American children and young adults. Exercises in ten subject areas were administered to random samples of Americans in four age groups: 9 year olds, 13 year olds, 17 year olds, and young adults. Data obtained from the respondents were presented in terms of the percentage giving the desired response.

The approach of the National Assessment can be exemplified by the treatment of citizenship, one of their subject areas. Rather than rate over-all quality of citizenship, National Assessment measured the degree to which specific behavioral objectives were being achieved. For example, "it might be reported that 10 percent of the 17 year old boys in the country have written a letter to a public figure about some civic issue" (p.4). The citizenship objectives for the first assessment were presented in this booklet.

Author: Norris, E. L. and Bowes, J. E. (Eds.)

Title: Reading Objectives

Source: National Assessment of Educational Progress;
Ann Arbor, Michigan, 1970, 34 pp., $1.00

As part of the National Assessment program, which has been described previously in this literature review (see Goodwin and Norris; Norris), reading objectives were developed and presented in this booklet. The objectives pertained to reading comprehension, analytic abilities, use of what is read, logical reasoning from what is read and judgments concerning what is read.

Author: Ohio State University Center for Vocational and Technical Education

Title: Combined Resource Papers from the National Conferences on Career Education

Source: Ohio State University Center for Vocational and Technical Education; Columbus, Ohio, 1972, 226 pp. (ERIC ED 064 494; MF $.65, HC $3.29)

This publication combines the papers presented at two conferences called to orient leaders in schools of education with the Office of Education's goal of injecting a career education focus into the continuum of schooling. Seventy-one deans of colleges of education were in attendance at the first conference, and 134 professors of educational administration met at the second one. Papers included in this report by Osipow, Reinhart, A. J. Miller, Keller, Goldhammer, G. Smith, and W. Moore consider the implications of career education for the training of new educators.

Author: Olson, LeVene A. (Ed.)

Title: Career Awareness Education: Introduction, Instructional Resource Units, and Annotated Bibliography

Source: Marshall University Department of Vocational-Technical Education; Huntington, West Virginia, 1972, 126 pp. (ERIC ED 064 510; MF $.65, HC $6.58)

This teaching guide contains twenty-six resource units for teaching career awareness in grades one through six. The approach of "curriculum blending" is used to relate subject matter to occupational information. The guide is arranged in three column format of procedures, student activities, and resources.

Some of the units are: Our Parents in the World of Work; Away We Go; Supermarkets Serve People; Protective Services Provided by Our State; Wonderful World of Money; Around the World on an Occupational and Vocational Education.

Author: Olson, LeVene A.

Title: An Evaluation of Elementary Career Education Based on Language Achievement, Mathematics Achievement, and Occupational Awareness in Lincoln County, West Virginia. A Summary

Source: Marshall University Department of Vocational-Technical Education; Huntington, West Virginia, 1972, 29 pp.

This study was one of the first to evaluate the impact of career education on elementary grade achievement levels. This study found that children in the career education group scored substantial gains not only in occupational awareness but also in language arts and mathematics. Comparison of pre- and post-test scores of experimental and control groups involved for two semesters (1971-1972) in the Lincoln County Career Awareness Program showed the experimental group gained 11 percent more in language arts, 24.5 percent more in mathematics, and 18 percent more in occupational awareness than the control group did.

Olson concludes that the data suggest credibility of the following hypotheses: (1) emphasizing the implications of academic skills to career goals is an effective vehicle for achieving both academic and career educational goals; and (2) an activity-centered approach allows for a greater understanding of self, academics, and the world of work. He notes that in-service training and integration of effort by administrators, parents, teachers and community were significant components of the effort.

Author: Osipow, Samuel H.

Title: Theories of Career Development

Source: Appleton-Century Crofts; New York, 1968, 259 pp., $7.95

This book provides not only exposition but comparative analysis of the major theories of career development. Osipow cautions aginst considering them "fullblown" in the context of physical science theory; they are rather "fragments" and can most usefully serve as prototypes of future theories.

The concepts he includes in his analysis are Roe's personality theory of career choice, Holland's career typology of vocational behavior, the Ginzberg, Ginsburg, Axelrad and Herma theory of career development stages, Super's developmental self-concept theory, and more general psychoanalytic personality and sociological approaches.

Osipow's concluding remarks address the shortcomings of the field, both generally and specifically. In general, he finds the theories "too broad in scope and too skimpy in detail." He points out specifically that the universal rationale is that all men want to work, but seldom has consideration been given to the possibility of negative attitudes toward work. Another criticism is the lack of any attention to the career development of women. He also finds the concept of interests in career development to be "overemphasized," on the grounds that, "It is not really very helpful either in understanding career development or in helping people to make sound educational/vocational decisions."

Author: O'Toole, James (Task Force Chairman)

Title: Work in America: Report of a Special Task Force
to the Secretary of Health, Education, and
Welfare

Source: Department of Health, Education, and Welfare;
Washington, D. C., 1972, 211 pp.

Commissioned with the charge of examining the quality of working life in America, this task force report is praised by Commissioner Richardson for providing "breadth of perspective and freshness of outlook" on the interrelated broad social concerns of manpower, medical care, education, and welfare. Richardson constituted the Task Force as an outside-government resource, with the same autonomy and independence accorded the 1971 Newman Task Force on Higher Education. He notes that its attacks on fragmentation and categorization point up the need to unify and pull together federal programs involving human resources.

The first chapter discusses the nature of work, its centrality in the lives of adults, and the repercussions of unemployment or worker dissatisfaction in terms of human costs. The second chapter concentrates on special sectors of the work force, including attitudes of blue- and white-collar workers, minorities, and women. Other chapters review the physical and mental health costs of jobs as they are now defined, suggest alternate designations, and discuss major deficiences of current programs.

Author: Peters, Herman J. and Hansen, James C. (Eds.)

Title: Vocational Guidance and Career Development (2nd ed.)

Source: The Macmillan Company; New York, 1971, 483 pp.,
$5.25

The 1971 edition of this book of readings reflects the new trends in career development and vocational guidance theory and practice. It provides coverage of psychological and sociological interpretations of workers' roles, as well as practical applications for the school situation. Chapters on occupational roles and vocational counseling for disadvantaged students and women are included.

Author: Peterson, Marla

Title: Occupacs for Hands-On Learning

Source: American Vocational Journal, 1972, vol. 47, no. 1,
pp. 40-41

This article describes the innovative approaches to career education that are being implemented in the Occupacs multi-media packages being developed at Eastern Illinois University by another BAVTE sponsored project. The basic rationale is that career education materials should get out of the educational rut of relying on printed job information formats that are limited to the fireman, policeman, and other already familiar roles. Another tenet is that the children should be involved in "doing" rather than passive feed-in learning situations. The use of varieties of media also enhances the effectiveness of the materials.

The Occupacs materials are packaged units that combine tapes, slides, sounds of work, simulated work activities, and props to present a multi-dimensional idea of a particular occupation.

Author: Popham, W. James and Baker, Eva L.

Title: Planning an Instructional Sequence

Source: Prentice-Hall, Inc.; Englewood Cliffs, N.J.,
1970, 138 pp., $2.25

This book contains five self-instruction programs aimed at helping both pre-service and in-service teachers plan a series of instructional activities to promote the learner's attainment of explicit educational objectives. These programs deal with systematic instructional decision-making, the nature of educational objectives, selecting appropriate educational objectives, establishing performance standards, and a curriculum rationale. A set of filmstrip-tape instructional programs coordinated with the book is also available.

Author: The President's Commission on School Finance

Title: Schools, People, and Money: The Need for Educational Reform (Final Report)

Source: United States Government Printing Office; Washington, D.C., 1972, 147 pp., $2.00

This report discusses funding responsibilities for every level of public spending for education and also deals with fundamental policies and prescriptions for the reform of American education.

Of particular interest to the career education sector is the recommendation that career education should be brought to parity with college preparation. The commission also recommends innovative approaches that aim at opening up the student's experiences with the community outside the school. There is discussion of work-study programs, year-round school operations, and early childhood education beginning at age 4.

The report also discards "conventional exhortations," as, for example, the shibboleth that all educational problems are tractable, given massive funding and low teacher-student ratios. The commission holds that the relation between spending and quality in education is "exceedingly complex and difficult to document," and that class size effect has not yet been demonstrated. It also calls for statewide evaluation systems to provide comparable data on educational results.

Author: Pucinski, Roman C. and Hirsch, Sharlene Pearlman (Eds.)

Title: The Courage to Change: New Directions for Career Education

Source: Prentice-Hall, Inc.; Englewood Cliffs, New Jersey, 1971, 207 pp., $6.95

This book of readings on career education has the support of the Congressional committee responsible to the chairman of the House Subcommittee on Education Vocational Amendments legislation of 1968. Former Congressman Pucinski and Sharlene Hirsch, the Committee's Education Director, find the system has yet to be turned around to provide the realities of career education envisaged by that legislation. The foreword places the blame on the educational system for "its insensitivities, bureaucracies, professional inbreeding, outdated standards, hesitant leadership, and lack of meaning for life and work in a complex adult world."

The section "Power to the People" contains specific indictments of educational failures for urban and disadvantaged youth and women. (See a separate annotation of the chapter by Simpson on "The New Womanhood: Education for Viable Alternatives.") Another paper by Calkins attacks credentialism for providing "paper passports" to the world of work.

The remaining chapters provide contributions from leaders in the field of vocational education, including Mangum, Feldman, Tiedeman, Schaefer, Burt, Burkett, and Dees. Their papers give a wide range of practical views on making career education work.

Author: Rahmlow, Harold F.

Title: A Series of Programmed Instruction Books for Learning Occupationally Oriented Basic Mathematics. Report No. 16, Final Report

Source: Washington State Coordinating Council for Occupational Education, Olympia, Wash. and Washington State University, Pullman, Wash.; 1968, 22 pp. (ED 022 928; MF $.65, HC $3.29)

The final report on this project describes the development of a series of 27 programmed mathematics textbooks for students who plan to enter clerical, retailing, construction, electronics, food service, child care, or agricultural occupations. Behavioral objectives were determined in earlier task analysis studies of these occupational clusters. The major mathematical elements covered are symbols, representing numbers by letter, reduction of fractions, ratios and fractions, computations involving fractions, multiplication and division of decimals, conversion of fractions into decimals, equivalent forms of ABC, solutions of ABC, percentage, commutative law, reciprocals, scientific notation, proportions, and concepts of number bases.

The complete series of texts is available running in consecutive ED numbers from ED 022 928 to ED 022 963, and also ED 023 884 and ED 023 885.

Author: Rahmlow, Harold F. and Cavanagh, Catherine

Title: A Survey Instrument for Identifying Clusters of Knowledge and Competencies Associated With Performance of Child Care Work

Source: Washington State Board for Vocational Education; Olympia, Wash., 1966, 22 pp., (ERIC ED 010 661; MF $.65, HC $3.29)

A research team developed and field tested a survey instrument designed to obtain data about the major types and combinations of tasks performed by child care workers. Field testing was done with the employees of a playschool and a day nursery. Subjects were asked to indicate tasks performed in the areas of housekeeping, food preparation, assisting children with routines, material preparation, clerical and secretarial work, planning activities or programs, purchasing,and working with parents. The goal was to improve compatibility between academic curricula and the world of work.

Author: Rahmlow, Harold F. and Kiehn, Shirley O.

Title: A Survey and Analysis of Major Tasks, Knowledges Associated With Work in Child Care Occupations. Final Report

Source: Washington State University; Pullman, Wash., 1967, 42 pp. (ERIC ED 021 066; MF $.65, HC $3.29)

This study was conducted to identify knowledge and competency clusters associated with non-professional child care occupations for use in occupational curricula. Employees in day care centers, Head Start projects, and nurseries were surveyed to ascertain the necessary knowledge. No relationship was found between the worker's educational level and the tasks performed. The study concluded that child care worker education could be expedited by the development of a knowledge taxonomy as a basis for a spiral curriculum whereby the various levels of knowledge could be taught at their appropriate place to prepare students for entry level jobs and occupational mobility.

Author: Rahmlow, Harold F. and Winchell, Leonard

Title: Mathematics Clusters in Selected Areas of
Vocational Education

Source: Washington State Board for Vocational Education;
Olympia, Wash., 1966, 15 pp., (ERIC ED 010 659;
MF $.65, HC $3.29)

The objective of this study was to conceptualize and identify mathematics knowledge useful in job situations and most likely to facilitate employment for non-college trained youth. On the basis of Bureau of Labor Statistics, six occupational areas were selected for study: office work, general merchandise retailing, building trades, electronics, food service, and child care.

Five clusters were found to be useful: operations with fractions, operations with decimals, conversion of fractions to decimals, concepts of percentage, concepts of ratio and proportions.

Author: Rahmlow, Harold F., et al.

Title: A Survey Instrument for Identifying Clusters of Knowledge and Competencies Associated with Performance of Food Service Work

Source: Washington State Board for Vocational Education; Olympia, Wash., 1966, 20 pp. (ERIC ED 010 660; MF $.65, HC $3.29)

This report describes a survey instrument for obtaining up-to-date information about major types and combinations of tasks performed by food service workers. It covered basic tasks involved in food preparation, management and supervision of commercial and institutional food service establishments, food purchasing, food serving and menu planning. This is one of 13 reports on the vocation-technical education research and development project of Washington State University.

Author: Research and Policy Committee of the Committee for Economic Development

Title: Education for the Urban Disadvantaged: From Preschool to Employment. A Statement of National Policy

Source: Committee for Economic Development; New York, 1971, 86 pp., $1.50

This policy paper of the Committee for Economic Development supports a substantial effort to provide disadvantaged youth with "functional" education as a means of breaking the poverty cycle. To this end, they stipulate that education must provide a base of minimal achievement in basic literacy skills plus comprehensions of the world of work and opportunities to enter it.

They urge beginning such functional education in kindergarten to make the child aware of the different forms of work and its ensuing obligations and rewards. They point out that the absence of career orientation in many disadvantaged homes makes it even more important for the school to bridge the gap between work and education. The Committee recommends "infusions" of information about careers continuing through the elementary grades, becoming clearly focused at the junior and senior high levels.

The opposition to strictly vocational education for the disadvantaged is cited here, because it is perceived as an "arbitrary channeling" of students into programs that lock the disadvantaged out of opportunities for further education. The goal of functional education is seen as linkage between school and job that helps the student obtain full-time employment.

Author: Rhodes, James A.

Title: Vocational Education and Guidance: A System for the Seventies

Source: Charles E. Merrill Publishing Co.; Columbus, Ohio, 1970, 163 pp.

Ohio has been an active state in emphasizing career education for all students. The background of failure of the general curriculum to provide relevant education, plus the counseling emphasis on the college-bound student, provide the rationale for the comprehensive K-adult program described in detail. The overall goal of the Ohio system is to have the student move through the curriculum with age-appropriate opportunities for acquiring job information, exploring career possibilities, and making career choices. The guidelines for elementary, middle, junior high, and high school programs in support of these goals are spelled out, and provide suggestions for other districts or states in their development of career education programs.

Author: Richards, James M., Jr.

Title: Prediction of Career Plans

Source: Project TALENT: Five Years after High School,
J. C. Flanagan, et al. American Institutes for
Research, Palo Alto, California and the University
of Pittsburgh, Pittsburgh; 1971, Ch. 4

This chapter presents the point biserial correlations between occupational choice and each of the 64 cognitive and 45 non-cognitive tests used in Project TALENT. Assuming that choosing or not choosing a profession is a dichotomy, this multiple point biserial correlation technique allows the researcher to distinguish young people choosing a given occupation from young people in general.

The results of the study indicated that tests administered to high school students have substantial validity for predicting the occupational choices of the same students five years after high school. Contrary to the findings of some previous research, tests were as good if not better predictors of occupational choice than expressed vocational interest. The predictive validities of cognitive and non-cognitive tests were approximately equivalent.

Author: Richards, James M., Jr.

Title: Stability of Career Plans

Source: Project TALENT: Five Years after High School,
J. C. Flanagan, et al. American Institutes for
Research, Palo Alto, California and the University
of Pittsburgh, Pittsburgh; 1971, Ch. 3

This chapter examines the relationship between high school career preferences and occupational choice five years after high school. For males there appear to be rather marked changes in career preference during the five year period following high school graduation.

During those five years the percentage of men planning careers in fields related to physical science and biological science decreased and the percentage of men planning careers in business fields and skilled labor increased. The major change in career preference for women involved a substantial increase in the proportion of women choosing housewife as their primary career.

Author: Rosenberg, Mae E.

Title: Career Education: Limitations and Possibilities
(Research Note)

Source: Stanford Research Institute, Educational Policy
Research Center; Menlo Park, California, 1971,
53 pp., available on request

This paper offers an analysis of the restraints and potentialities of career education as a broad federal thrust to redress inequalities of educational opportunity. Rosenberg holds that career education cannot insure that students are satisfied with the jobs they ultimately attain. She points out that youth unemployment is too intransigent and complicated a problem to respond to educational remedies alone. Moreover, she says, "No matter how well the system trains its students, if there are no jobs for well-trained graduates, it will have contributed more to frustration than to satisfaction."

However, Rosenberg does see career education as a vehicle for providing opportunities to achieve a number of socially desirable goals. Its specific contribution could be to provide students with the resources for job entry or advanced training and yet "keep them attuned and able to adapt to a changing job market and society in which the work-leisure paradigm may become a leisure-work one in their lifetime."

Author: Rosenberg, Mae E.

Title: Curriculum Issues and Career Education

Source: Paper commissioned for Work in America. James O'Toole (Ed.). Report of a Special Task Force to the Secretary of the Department of Health, Education, and Welfare, 1972, 211 pp.

In this paper on the broad issues facing the decision-makers of American education, Rosenberg discusses the role of career education, particularly as it relates to the 3-R's.

She begins with the cornerstone value of the 3-R skills for each child, "for without them, children are early failures in their educational experience and misfits in our highly literate society."

The role of career education is seen as a threefold one: (1) it can provide the "legitimating basis" for changing the learning environment of the classroom; (2) it can provide the "core" around which a curriculum can be structured that is a child-involving one rather than a passive-instructional one; and (3) it can provide a "knowledge-bridge" between the child and the community. She points out that "this knowledge, readily available to the child of the Middle Ages, is largely unavailable to our children."

Author: Schlossberg, Nancy K. and Goodman, Jane

Title: A Woman's Place: Children's Sex Stereotyping of Occupations

Source: Vocational Guidance Quarterly, 1972, vol. 20, no. 4, pp. 266-270

This study of sex stereotyping of occupational roles found the issue to be the limitation of women's expectations to certain occupations. When asked, "Could a woman do that?", children evidently responded in terms of "Do women do it?" With few exceptions the children chose jobs for themselves that fell within the usual stereotypes.

Author: School Mathematics Study Group

Title: An SMSG Statement on Objectives in Mathematics Education (Section I); Minimum Goals for Mathematics Education (Section II)

Source: School Mathematics Study Group; Stanford, California, 1972, 46 pp., available on request

Stating hoped-for educational outcomes as a basis for measuring student progress is essential to educational accountability. This SMSG publication analyzes how the rapidly growing public demand for accountability relates to mathematics education.

Section I of the report presents a policy statement defining some important criteria that should be kept in mind when examining or constructing educational objectives. Section II contains the specific minimum goals of the most recent SMSG junior high school curriculum, Secondary School Mathematics.

Elements are defined that should be considered in judging objectives, i.e., content, cognitive level, affective domain, verifiability, population and form. Analysis of those elements and a comprehensive review of the objectives literature provide a basis for the following criteria for mathematics education:

1. Statements should be hortatory, not wishful thinking.
2. Objectives should be taken as floors, not ceilings.
3. The purpose of the objectives should be made clear to distinguish serious relevant purpose from personal whim.
4. Objectives must be clearly verifiable and feasible.
5. Mathematics objectives should be stated in terms of student behavior, with the expectation that a particular pedagogical objective is advocated: teach understanding of a mathematical process before developing skill in the process.
6. Avoid affective objectives, since there is no evidence that attitudes toward mathematics can be manipulated.

Author: Schrank, Robert and Stein, Susan

Title: Yearning, Learning, and Status

Source: Blue Collar Workers: A Symposium on Middle America, S. Levitan (Ed.). McGraw-Hill Book Co., New York, 1971, pp. 318-342

This chapter, in an anthology covering blue collar workers' attitudes and dissatisfactions in the framework of life and work styles, deals with their feelings about education. The blue collar worker perceives education to be the sure-fire way to upward social mobility, if not for himself, then for his children. Increasingly large percentages of children from blue collar families are taking advantage of educational opportunity. However, an overall increase in educational level of the work force creates restlessness and demands for more interest and challenge on the job. The authors point out that "people want meaningful work" has become a slogan of industry.

The blue collar worker himself does not, by and large, utilize opportunities for further education. This is partly because of financial restraints but also because credentialism does not recognize peripheral education. Moreover, unions have not made educational opportunities for their workers a contractual demand. The authors attribute this "negligence" to both the old-style attitude that education is irrelevant to work and to the fear that, "Anything that moves the members out of the bargaining unit is a threat to union power."

Also presented is a discussion of the need to broaden the focus of the educational system to meet the multiplicity of societal demands--particularly through change in the curriculum, which must integrate academic and general technical education. The authors caution that specific occupational training is more efficiently done by industry.

Author: Sexton, Patricia Cayo

Title: Lifelong Learning

Source: The Urban Review, 1972, vol. 5/6, pp. 5-12

This article presents a sociologist's interpretation of career eduction as "lifelong learning" that goes far beyond the school-job horizon. In addition to academic and vocational job training, she perceives "lifelong learning" as having three other streams--leisure learning, mass media experiences, and real-life learning. She argues in favor of "the sorely needed connection between the academy and real life," and also urges that real-life learning and accomplishment be given status and recognition.

Author: Shaycoft, Marion F.

Title: Hierarchical Analysis: An Approach to the Grouping of Career Categories

Source: Project TALENT: Five Years After High School, J. C. Flanagan, et al. American Institutes for Research, Palo Alto, California and the University of Pittsburgh, Pittsburgh, Pennsylvania; 1971, Ch. 5

In this technical but clear methodological article, Shaycoft describes the application of hierarchical analysis (a multivariate data reduction technique) to the grouping of career categories. In the first portion of the chapter the mathematical steps for computing the hierarchical scores are given. Later portions describe the application of the techniques to the Project TALENT data.

The conclusion of the chapter evaluates hierarchical analysis as useful for providing preliminary clues for a scheme to group career categories but warns that groupings yielded by the method cannot be considered more than tentative.

Author: Shaycoft, Marion F.

Title: Preparation for a Career

Source: Project TALENT: Five Years after High School,
J.C. Flanagan, et al., American Institutes for
Research, Palo Alto, California and the University
of Pittsburgh, Pittsburgh; 1971, Ch. 11

Information concerning preparation for entering a chosen career field is presented in this chapter. The chapter was based upon questionnaire data gathered for the Project TALENT five year follow-up study. A central aspect of this study was the cross-tabulation of various information by an item which asked, "Have you made any important decisions that you are now sorry about?" In addition a series of items asking about job goals and steps taken toward these goals was also used for cross-tabulation purposes.

The results indicated that lack of educational attainment was closely associated with feelings of discontent or regret. Men who had obtained training toward some chosen career objectives were less likely to regret prior decisions than men who had not received such training. Employment in a field which one aspired to enter was also associated with fewer regrets. In general, the more educated members of the sample indicated the most satisfaction.

Author: Shaycoft, Marion F.

Title: The Project TALENT Approach to the Career-Grouping Problem: Cutting the Gordian Knot

Source: Career Education and the Technology of Career Development. Proceedings of the Eighth Invitational Conference on Systems under Construction in Career Education and Development. American Institutes for Research; Palo Alto, California, 1972, pp. 50-65

This paper discusses insights into the career categorization problem provided by hierarchical analysis methods used in Project TALENT. Contrary to prior expectations, these procedures revealed that there are no tight clusters of occupations into which occupational groups naturally fall. As a result, Shaycoft cuts "the Gordian knot" --the usefulness of having a multiplicity of desirable solutions to choose from, all equally sound from a statistical viewpoint, means "We are free to choose the one that best meets practical demands." The paper provides detailed descriptions and diagrams of the methodology and analysis.

Author: Simpson, Elizabeth J.

Title: The New Womanhood: Education for Viable Alternatives

Source: The Courage to Change: New Directions for Career Education, Roman C. Pucinski and Sharlene Pearlman Hirsch (Eds.). Prentice-Hall, Inc.; Englewood Cliffs, New Jersey, 1971, pp. 59-83

Simpson presents the view that it is imperative to educate women realistically for their dual expectations of roles as wage-earners and homemakers. "Womanpower" estimates for the 1970's predict that one-half million women annually will enter the work force, and that at some time during their lifetimes, nine out of every ten women will be employed. Simpson points out that the hurdles of role stereotyping, narrowing the occupational horizons of women, are set up in early childhood, despite the fact that no basic differences in intelligence exist among sexes.

Her article contains a comprehensive analysis of and recommendations for changing the situation. Beginning at nursery school age levels, teachers should be educated to assume greater responsibility for helping girls develop their vocational self-concept; new text materials should present a variety of socially constructive life styles and roles, particularly occupational roles; and, employed married and single women should be involved as resource people to bring wider awareness of occupational roles.

Author: Sjogren, Douglas

Title: Review and Synthesis of Research on Occupational Adaptability

Source: ERIC Clearinghouse on Vocational and Technical Education; Columbus, Ohio, 1971, 30 pp., $.30

This monograph summarizes the literature on the important concept of occupational adaptability. The need for individuals to acquire skills, attitudes, and understandings that are generalizable and transferable to new work concepts is seen as related to the rapid pace of societal change arising from technological expansion, minority demands for increased participation in job markets, and the public demand for efficiency and economy in education.

Sjogren has reviewed studies under broad headings of (1) occupational adaptability, (2) job analysis, (3) curriculum-oriented work, and (4) work adjustment. Of particular significance to career education curricula is his discussion of research on job analysis and the identification of commonalities, i.e., job clustering. He finds that although clustering is a useful tool for obtaining insights about job requirements, it is still one or more steps removed from actual curriculum building, because of "the lack of objective criteria for deciding that a group of jobs is a cluster or not."

Author: Smith, Edward D.

Title: Vocational Aspects of Elementary School Guidance Programs: Objectives and Activities

Source: Vocational Guidance Quarterly, vol. 18, no. 4, 1970, pp. 273-280

Smith, Director of Guidance Services for Pennsylvania, defines general mandates to the elementary school in vocational guidance and supplies practical suggestions for carrying them out. The mandates include expanding the child's knowledge of the work world, clarifying distorted views of some occupations, understanding the broad social and individual dimensions of work roles, understanding the connection between education and future jobs, and acquiring more effective decision-making skills.

Some highlights of his discussion of strategies are:

1. Use a familiar occupational role to broaden the child's awareness of the magnitude of the work world. For example, a doctor can provide the first step to developing the cluster idea of a medical team that includes nurses, therapists, pharmacists, etc.

2. Transmit to the student the understanding of the inevitability of future change, so that he can adapt without anxiety to the idea of both individual and social change.

3. Treat decision-making as a learnable skill that can overcome the far too prevalent anxiety over making poor decisions, or even decisions which may be judged as poor by peers or significant by adults. Smith feels that regardless of age levels, the basic tools are accurate, understandable information and a plan for using it. He concludes, "teaching decision-making skills is a matter of providing the learner a model for the systematic analysis of situational and self-information which, when blended, will trigger some course of action."

Author: Smoker, David S.

Title: Vocational Education: Innovations Revolutionize Career Training

Source: Education, U.S.A. Special Report, National School Public Relations Association; Washington, D.C., 1971, 64 pp., $4.00

This monograph provides the reader with a condensed view of career education activities on the legislative and educational fronts at all levels--federal, state, and local. Executed as an Education U.S.A. position paper to provide in-depth coverage of major thrusts in American education, its publication alone is indicative of the importance attached to the career education movement. Taking the Vocational Education legislation of 1963 and 1968 as "the turning point," Smoker delineates how the provisions of the legislation are being translated into programs.

He summarizes the range of state efforts to comply with the legislation, giving examples of those with a heavy commitment as well as those whose programs are just beginning.

The report also clarifies the impact of career education on vocational curricula, vocational counseling and guidance, accreditation, teacher education and certification. It describes exemplary projects and defines the roles of various government agencies.

Although aimed primarily at an audience of educational administrators, this report could be a resource for anyone involved in the study or implementation of career education.

Author: Stefflre, Buford

Title: Run, Mama, Run: Women Workers in Elementary Readers

Source: Vocational Guidance Quarterly, 1969, vol. 18, no. 2, pp. 99-103

The push to bring career awareness into elementary school programs stops short of elementary readers--at least for girls--according to this comparison of women's work roles in readers with those of census figures reality. In the world of readers, only 7 per cent of the workers are women; yet, in reality, women comprise 37 per cent of the working force. The marriage/work role is shown in readers as an either/or alternative for women, with only 5.5 per cent of married women shown as workers. Even the job portrayals are unrealistic. The percentage of women shown in readers working at the professional level is about four times that of reality but seven times as many women work at factory-type jobs as is indicated in the books.

Stefflre concludes that it should be "incontrovertible" that children should be aware of the realities of work expectations that "prepares the young girl for the multiple roles--wife, mother, worker--that she probably will play."

Author:	Stone, Shelley C. and Shertzer, Bruce (Eds.)
Title:	Career Information and Development. Guidance Monograph Series IV
Source:	Houghton Mifflin Company; Boston, 1970, $15.00

This series is published in the form of paperback monographs in a cardboard display case. The range of titles provides an overview of theoretical and practical aspects of the guidance field. The individual monographs, all written by experts in career development, are:

"Theories of Occupational Choice and Vocational Development," Joseph Zaccaria;

"Psychological Influences on Vocational Development," Donald G. Zytowski;

"Students' Vocational Choices: A Review and Critique," Duane Brown;

"College Information and Guidance," Mary E. Barre;

"Occupational Information and Guidance," Daniel Sinick;

"The Theory/Practice of Communicating Educational and Vocational Information," Ann Martin;

"Decision-Making and Vocational Development," Edwin L. Herr;

"Innovations in the Use of Career Information," Joyce M. Chick; and

"Influence of Sociological Factors Upon Vocational Development," Robert Bain.

Author: Super, Donald E.

Title: The Vocational Education of the Semiskilled

Source: New Conceptions of Vocational and Technical Education, M. Rosenberg (Ed.). Teachers College Press; New York, 1967, pp. 31-45

Super differentiates between education that is appropriate for the middle-class career stability of skilled workers and the more difficult task of preparing semiskilled workers for unstable, job-changing career patterns. Training in occupational skills is called typical of the "blindness" of vocational educators to the basic needs of the semiskilled workers for whom the best education is that which makes him "employable."

To be "employable" entails: (1) basic training so that the student can learn "whatever he needs to learn as he encounters new situations and meets new demands;" (2) vocational social science that encompasses an understanding of the economics, sociology and psychology of industry and of work (Super pinpoints some specifics, such as the economics of obsolescence and automation, occupational trends, budgeting for seasonal and cylical unemployment and relationships between job and life style); and (3) avocational education.

Author: Super, Donald E.

Title: A Theory of Vocational Development

Source: Vocational Behavior: Readings in Theory and Research, D.G. Zytowski (Ed.). Holt, Rinehart, & Winston; New York, 1968, pp. 121-129

This paper is one of the basic references for career education, since it provides the foundations of the developmental self-concept approach to career growth and choice. Some major components of Super's concepts are:

(1) People differ in their abilities, interests, and personalities. Their characteristics qualify them for a number of occupations. This versatility is the antithesis of the one man one job notion.

(2) Vocational preference and competencies are subject to change, making choice and adjustment a continuous process.

(3) The continuum of this process is marked off into periods of growth, exploration, establishment, maintenance, and decline. These periods encompass fantasy, tentative, and realistic phases (exploratory stage), and trial and stable phases (establishment stage).

(4) The individual's career pattern is determined by his socioeconomic level, ability and personality traits, and opportunities.

Author: Sylwester, Robert, et al.

Title: Peacemaker, Plumber, Poet, Drummer?

Source: Instructor, February 1972, vol. 81, no. 6,
pp. 45-56

The first part of this feature article deals with four important questions that elementary students ask or should ask. The questions are: what am I like?, am I changing?, what will I be like?, how will I affect others, and how will they affect me?. It is suggested that these questions can be developed into a career theme for enriching present programs. The article includes many practical and creative ideas for implementing this theme.

The second part of the article tells how to initiate a program in a school system. It also includes model programs from school systems.

Author: Task Force on High School Redesign

Title: Toward the 21st Century

Source: Report of the Task Force on High School Redesign
of the Office of High Schools and the Chancellor's
Center for Planning, New York City Board of Education; New York, 1971, 50 pp., available on request

The vision of career education as a two-way street between school and the community outside can derive support from this report on the redesign of New York secondary education. It provides both tactical and strategic recommendations for changing the New York schools. Some of the short-range ideas are job-oriented mini-schools, career conferences, visits to industry, the correlation of curriculum with job relevance, broadening of opportunities to develop occupational skills, and programs to upgrade blue collar job status. Its long-range prescriptions call for designing models with such components as curricular options, open campuses, city-as-schools, school of municipal affairs, civic services, urban planning, and effective curriculum.

Author: Taylor, Robert E.

Title: Career Education: Implications for Increased
Educational Relevancy

Source: New York School Study Council, Notations extracted
from presentation at Career Education Conference;
Syracuse, New York, October, 1972

This report presents extracts from Taylor's discussion primarily of the Ohio State University school-based career education project, and secondarily of the three alternative models.

He reports that approximately 100 curriculum units will be tested in 1972-73 in the six participating school districts -- Mesa, Hackensack, Atlanta, Los Angeles, Jefferson County, and Pontiac. All the participating administrators and teachers will have completed some level of orientation or in-service training. A modified Delphi technique was used to develop the matrix of 8 major elements which have been broken down into 32 supporting themes. In addition, 3,000 objectives have been established.

The eight basic elements are self-awareness, educational awareness, career awareness, economic awareness, self-social fulfillment, decision-making, employment skills, and employability skills. A study conducted by the Institute for Educational Development showed no difference in attitudes among the six districts that would call for different approaches.

Taylor reported that the employer-based model is encountering difficulties in securing a coordination of effort among schools, management, and unions. Some of the attitudes that are hampering coordination are the feeling on the part of employers that it is the school's responsibility to educate--that they derive no profit from assuming an education role. Labor unions fear that the program may be "counter-productive" to their apprenticeship programs. In addition, there are legal complications that may arise if the laws forbidding child labor are contravened.

Author: Tennyson, W. Wesley, et al.

Title: The Teacher's Role in Career Development

Source: National Vocational Guidance Association;
Washington, D. C., 1965, 107 pp., $1.25

Tennyson is one of the pioneer educators to perceive the school as "the most important single agent of occupational development." This monograph, first published in 1960, gives help to teachers in making use of their subject area to expand students' vocational horizons. The underlying assumption is that parents are no longer able to provide their children with the personal contacts that provide career awareness by a process of osmosis as our society becomes increasingly complex and technological. Moreover, he cites some examples of occupations--such as engineer, toolmaker, physical therapist, pattern maker, and actuary--that have "low visibility." Students have only "foggy" notions of the functions of the job, "let alone the social problems and psychological factors that delineate the specifications of the occupation."

Tennyson has two general chapters to help the teacher develop general understanding of the past, present, and future issues involved. The remainder of the monograph is devoted to charting career orientations possible in 12 different subject areas: English and language arts, science, social studies, mathematics, art, music, foreign languages, as well as subjects with more obvious occupational ties. The report also includes a useful listing of occupational information.

Author: Tiedeman, David V.

Title: The Cultivation of Careers Through Guidance and Vocational Education. Project Report No. 18

Source: Paper presented at the Provincial Association of Protestant Teachers; Montreal, Quebec, November 22, 1968, 27 pp. (ERIC ED 034 212; MF $.65, HC $3.29)

Tiedeman's analysis stresses the need to broaden the concept of career to make the high school years a process of education for an interdependent learning experience in which the individual can grow in accordance with his own purposes. He proposes a Learning Resource Center with the basic instructional aid of a Computer-Educational Machine. Counselors would help the individual convert his learning into real life experiences, using the machine to provide "dress rehearsals."

Author: Tiedeman, David V.

Title: The Information System for Vocational Decisions: Description, Subsequent Development, and Implications. Project Report No. 16 B

Source: Harvard University; Cambridge, Massachusetts, 1968, 50 pp. (ERIC ED 060 480; MF $.65, HC $3.29)

In this paper Tiedeman discusses the implications for computer involvement in vocational counseling. The Information System for Vocational Decisions (ISVD) can be used to process data on vocational, military, and educational opportunities with the outcome of providing career advice tailored to the needs of the individual inquirer.

He also explains the workings of a control function called Monitor, which operates at various levels of awareness related to various stages of exercising personal responsibilities during decision-making uses of ISVD.

Author: Tiedeman, David V.

Title: The Agony of Choice: Guidance for Career Decisions

Source: The Courage to Change: Roman C. Pucinski and Sharlene P. Hirsch, (Eds.), Prentice-Hall; Englewood Cliffs, N. J., 1971, pp. 121-131

In this article Tiedeman discusses a concept of career guidance, "designed to insure that personal decisions about career are continually reexamined and validated throughout a person's life and places him in central control of his own choice mechanisms." He is concerned with "feedforward"----the sense of what the individual is attempting to create, coupled with a sense of agency. Tiedeman argues that the sense of agency is the primary concern of the guidance counselor.

He also views career as a continuity in which the key factor is deciding--the exercise of individual freedom through choice. In this context deciding is the key factor which enables the individual to map his future "instead of just aimless wandering."

Tiedeman also interprets this view of career decision-making in its relationship to computer assistance. The machine--such as the ISVD (Information System for Vocational Decisions)--not only provides informational data, it interacts with the student in supplying answers to relevant questions.

Author: Tiedeman, David V. (Chairman)

Title: Career Education and the Technology of Career Development. Proceedings of the Eighth Invitational Conference on Systems under Construction in Career Education and Development.

Source: American Institutes for Research; Palo Alto, California, 1972, 267 pp., $4.00

The reports in these conference proceedings range from the new Office of Education emphases and programs implementing former Commissioner Marland's assignment of top priority to career education to cybernetic approaches to facets of three major guidance programs of the host institution, the American Institutes for Research.

Part I includes a cornerstone speech by Marland and presentations on the school and employer based career education models under development for the Office of Education. Part II describes projects of the American Institutes for Research, Projects TALENT, PLAN, and the Comprehensive Career Guidance Program. Part III provides "state-of-the-art" reports on other career development systems. These include the U. S. Air Force Advanced Instructional System; a computer-managed instructional program to train academic advisers at Florida State University; Operation Guidance at Ohio State University; Career Decision-Making Program; a self-instructional mediated career guidance system model; Willowbrook Computerized Vocational Information System; IBM Education and Career Exploration System; Educational Testing Services System for Interactive Guidance and Information; and the University of Wisconsin-Milwaukee computerized guidance programs.

The final section deals with discussions on the relative advantages, implementation problems, and possibilities for utilizing technology in accomplishing program goals.

Author: Tiedeman, David V. and O'Hara, Robert P.
Title: Career Development: Choice and Adjustment
Source: College Entrance Examination Board; New York, 1963, 108 pp., $2.50

This monograph was one of the first studies to relate theoretical concepts of career development and choice to case histories of students at four different age levels (third grade, ninth grade, eleventh grade, and junior year of college) and provided the springboard for analyzing these interrelationships. The authors present a discussion of differentiation and integration as mechanisms of career development for attaining rational solutions to the problems of the individual's vocational choices.

Author: Tiedeman, David V., et al.

Title: Thought, Choice, and Action: Processes of Exploration and Commitment in Career Development. Volume I

Source: Harvard University; Cambridge, Massachusetts, 1967, 375 pp., (ERIC ED 050 293; MF $.65, HC $13.16)

Papers contained in this volume review, clarify, and offer a critique of important issues in career development research. Separate chapters report on the Harvard studies in career development, decision and vocational development, the self-concept, occupational psychology and guidance, and prospects for the future.

Author: Tiedeman, David V., et al.

Title: Thought, Choice, and Action: Processes of Exploration and Commitment in Career Development. Volume II

Source: Harvard University; Cambridge, Massachusetts, 1967, 325 pp. (ERIC ED 050 294; MF $.65, HC $13.16)

This second volume of papers on the Harvard studies in career development research covers differentiation and integration in personality development, occupational fact mediation, and aspects of imagination in the learning process.

Author: Tiedeman, David V., et al.

Title: An Information System for Vocational Decisions:
Final Report

Source: Harvard University; Cambridge, Massachusetts, 1970,
93 pp. (ERIC ED 042 046; MF $.50, HC $4.75)

This report finalizes the work on the Informational System for Vocational Decisions, a computer-based program developed to enable students to interact with data on educational and vocational opportunity in terms of their own inputs. Although field tests of the system were hampered by technical problems, the project demonstrated the potential of the computer in interacting with several inquiries, recognizing and responding appropriately to individual requests and providing facts and data at the specific level needed in order to be most helpful to the inquirer.

Author: Toffler, Alvin

Title: Future Shock

Source: Bantam Books, Inc.; New York, 1970, $1.95

Our world is changing so fast that many people have difficulty adjusting to the changes. This condition, a major premise of the book, is called "future shock." The changes have been caused primarily by technology, which gives rise to increasing mobility and to shifts in social and moral values. The changes that are upon us are so widespread that they influence every part of our lives: work, leisure time, living conditions, life style.

One basic effect of the changes is that our lives will always be in transition, lacking a sense of permanence. We will rent rather than buy, move from place to place, sluff off old friends and acquire new ones. Our lives will lack constants. The primary disadvantage of this process, of course, is the lack of stability in our lives. The advantage is a greater flexibility. Our decisions will less and less be irrevocable. We will be able to try out and discard careers, or choose various occupations at different stages in our lives. We will be able to try out various life styles rather than commit ourselves to one early on. Marriage may become serial. Firms will sell not only products or services but experiences and fantasies.

These trends have already begun. They will become stronger in the future.

Author: Trowbridge, Norma

Title: Self Concept and Socio-Economic Status in Elementary School Children

Source: American Educational Research Journal, 1972, vol. 9, no. 4, pp. 525-538

Results of a study of almost 4,000 Iowa elementary school children showed that pupils from low socioeconomic backgrounds tended toward stronger concepts of self-reliance than did their middle-class counterparts. A survey using the Coopersmith Self Esteem Inventory showed that the low SES child "believes he can take care of himself, can make up his mind, and thinks what he has to say is worth saying." The only dimension relating to school in which the middle-class child showed more self-confidence was in measures of school achievement.

Author: Tuckman, Bruce W.

Title: An Age-Graded Model for Career Development Education

Source: New Jersey State Department of Education; Trenton, New Jersey, 1972, 43 pp. (ED 060 180; MF $.65, HC $3.29)

This paper presents a career developmental model for use in grades K-12, built around development of self-awareness, career awareness, and career decision-making. Analyzing eight stages of child development, the model constructs a matrix of 24 cells. Processes and media appropriate to each cell are described.

Author: Turnbull, William W. (Chairman)

Title: Proceedings of the Conferences on Career Education. May, 1972

Source: Educational Testing Service; Princeton, New Jersey, 1972, 103 pp., $5.00

The introduction by Conference Chairman Turnbull, president of Educational Testing Service, addresses the need for a thorough review of the concept of career education if it is to become the instrument of sweeping reorganization of education. To this end, leadership representatives from education, government, industry, labor and minority groups were convened to discuss the impacts of career education.

Lukewarm support is expressed by the labor representative, Gus Tyler, of the International Ladies' Garment Workers' Union, who is suspicious on two counts--the motives of business and its effects on liberal education. He argues that, "Career education can become a sly way to dilute or obfuscate a good vocational education, or a devilish way to downgrade liberal education. ...Above all, there is the danger that emphasis on 'career' may turn the whole system into a prep school for making money." Another less-than-enthusiastic presentation is that of Harold Howe; his caveats include a warning that minorities may view career education as a shortchanging device that limits rather than enhances their horizons.

The case for career education is presented by Peter Muirhead and Congressman Roman Pucinski; Dale Parnell and Nolan Estes report on projects already underway.

Barbara Boyle presents a plea to "radically revise our philosophy and approach to career planning for women." She urges a self-education system for guidance counselors and teachers to revise their own attitudes and open up new horizons for the students they reach.

Author: Tyler, Ralph W.

Title: Investing in Better Schools

Source: Agenda for the Nation, K. Gordon (Ed.). Brookings Institution; Washington, D. C., 1968, pp. 207-236

This article labels American secondary education as an "adolescent island" isolated from the real world of adults. The article includes one of the early comprehensive analyses of the gap between the student's education and the adult world, but unlike many simplistic calls for relevance, Tyler's article proposes in detail the kind of massive restructuring that should be attempted. He has many suggestions to accomplish the attitudinal, hierarchical, testing, and credentialing changes necessary to make schooling an opportunity for sampling adult situations. He recognizes the massive funding that would be required, but also sees the urgency of providing main-stream education, particularly for the non-college bound student.

Author: U. S. Department of Labor
Title: Highlights of the 1972 Manpower Report
Source: Manpower, 1972, vol. 4, no. 6, pp. 10-14

This article summarizing the 1972 Manpower Report analyzes two pressing problems of major concern to career education. These are the high incidence of youth unemployment, particularly among blacks, and the dearth of opportunities for highly-trained workers, especially engineers, scientists, and teachers at every level, elementary to college.

Although workers in the 16-19 age bracket had a total 1971 unemployment rate four times that of over-25 workers, black teenagers had double the rate of joblessness of whites, in the same 16-19 age bracket. The report urges both immediate and long-range strategies to reform career preparation and school-to-work transitional efforts. The urgency of this need is further documented by predictive data that the number of black youths in the labor force will increase by 44 per cent by 1980. In contrast, white teenage participants in the labor market will rise by only 5 per cent by 1980.

This report also discusses the change in the job market picture for highly-trained teachers and engineers. Although unemployment in this labor group is still only 2.9 per cent, it has doubled in the past two years. Financial problems of schools and universities, as well as the decline in school age populations, are held to be the major factors underlying this kind of unemployment.

Author: University of Michigan Institute for Social Research

Title: Facts and Fictions About Working Women Explored: Several Stereotypes Prove False in National Study

Source: University of Michigan Institute for Social Research Newsletter, Autumn, 1972, pp. 4 - 5

This summary of a 1969 national study found that many prevalent ideas of women's work roles are not supported by the data. Some major "straw women" concepts are that women work for "pin money," are more passive and less inclined to take job initiative than men, and are more concerned with psychosocial factors of the job.

Some of the facts elicited by the survey are:

(1) One third of the women in the sample were the sole wage earner in the household, while an additional eight per cent reported that they were the major wage earner.

(2) Fifty-five per cent of the men said they had intellectually demanding jobs, compared to thirty-seven per cent of the women.

(3) There was no difference reported between men and women as to the importance of having a job that offers opportunities for advancement. Women, however, were found to

be less interested in promotion as a concomitant of their realistic acceptance of the expectation that they would not be promoted.

(4) More women than men reported that having friendly and helpful co-workers was an important job consideration.

This research is typical of the ongoing psycho-socio-economic studies that should be part of the background knowledge of curriculum developers and planners who are charged with remodeling the portrayals of work roles in elementary school programs.

Author: Venn, Grant

Title: Man, Education, and Manpower

Source: American Association of School Administrators;
Washington, D. C., 1970, 281 pp., $6.00

This book, written by a long-standing advocate of keeping career preparation in the educational system, is one of the basic references in career education. Venn views the assumption of vocational training by federal manpower programs as an intrusion on the province of education, and ineffectual in the bargain. He argues that manpower programs of the 1960's bypassed educational institutions, "those best able to develop new skilled and technical manpower," without effectively reducing the pool of unskilled and unemployed workers. He has many innovative suggestions for using schools to bring vocational education into the mainstream of education, both in terms of status and curriculum offerings appropriate for all students. His concern for using schools to best economic advantage leads to a proposal for year-round operation.

Author: Webster, William J. and McLeod, Gordon K.

Title: An Empirical Approach to Curriculum Design

Source: Education, 1970, vol. 90, no. 3, pp. 252-261

This paper discusses the general model for curriculum design used in developing the component parts of Project PLAN. Long-range objectives were used to identify the focus of the curriculum, topics that should be covered, and the curricular areas to which resources should be allotted. These broad spectrum objectives were then broken down into workable levels of specificity that could be appropriately fitted into the basic curricular unit, the module. The authors describe a module as "an instructional package which includes behavioral objectives, their associated learning activities and criterion tests." For each module a number of alternate work assignments, called teaching-learning units, were developed so that a student has a choice of options in accomplishing a given objective.

Procedures used to evaluate and revise objectives are also explained. The PLAN Advisory Panel, made up of experts in the four curricular areas of mathematics, language arts, science, and social studies, contributed heavily to the original design and evaluation procedures. Samples of mathematics units are included as well as tables showing evaluative data.

Author: Whiteley, John M. and Resnikoff, Arthur (Eds.)

Title: Perspectives on Vocational Developments

Source: American Personnel and Guidance Association; Washington, D.C., 1972, 251 pp., $5.95

The APGA has collected in this one report the positions of four leaders on career development theory, Super, Holland, Roe, and Tiedeman. The publication is a useful resource in that it provides the student and practitioner with access to early work in the developmental concepts of career involvement.

Author: Wilensky, Harold L.

Title: Varieties of Work Experience

Source: Man in a World at Work, H. Borow (Ed.). Houghton Mifflin Co.; Boston, 1964, pp. 125-155

The importance of job satisfaction as a major determinant of an individual's life satisfaction is the theme of this sociological view of "Man in a World at Work." Wilensky reports on his research in work alienation, and finds the incidence of dissatisfaction highest among blue collar workers and engineers. He also notes a general impression that the typical American man is only lightly committed to his work.

Author: Wolman, Jean M., et al.

Title: A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs (Final Report to the Office of Program Planning and Evaluation, U. S. Office of Education)

Source: American Institutes for Research; Palo Alto, California, 1972; Vol. I, 127 pp., Vol. II, 171 pp.

Private proprietary schools have long contributed to vocational education through initial occupational training, retraining programs for experienced workers, and, more recently, special training programs for the disadvantaged. In order to formulate policy decisions in vocational education properly, therefore, it is important to understand the roles of proprietary schools within the educational system and in the economy. This implies a strong need for comprehensive data about proprietary schools, their students, and their programs, including the cost and effectiveness of such programs. The Wolman et al report provides some of this information.

Occupations in office work, computer oriented fields, health, and the technical fields were selected for intensive study. These fields were chosen because they represent: a) fields of employment for which growth is anticipated, and b) areas for which proprietary schools provide training. All of the proprietary schools in Atlanta, Georgia; Chicago, Illinois; Rochester, New York; and San Francisco, California were included in the sample. The four areas were chosen for diversity of geography and labor force. Data about the specified programs in these schools were collected relevant to three main purposes. First, the characteristics of the institutions, programs, faculty, and students were described. Because comprehensive evaluation of vocational education requires follow-up of graduates, data about student characteristics were collected and information to facilitate follow-up studies was recorded. Similarly, information about institutions, programs, and faculty was gathered. Second, operational costs for these programs were determined. Both the cost to the student and the cost to the institution for training each student were considered. Third, to the extent that appropriate data can be obtained in a study that is essentially cross-sectional, measures of effectiveness were developed and applied to these occupational training programs.

These are the major conclusions of the study:

1) Proprietary and non-proprietary educational programs are generally successful in producing graduates with marketable skills.

2) Cost-benefit of training, clientele, and types of programs offered differ considerably among the occupational areas mentioned above.

3) Greater economic gains were obtained by non-proprietary school graduates than by proprietary school graduates.

4) Unaccredited and non-chain schools were equally as effective in placing their graduates as accredited and chain schools.

5) The background and motivational characteristics of proprietary and non-proprietary school graduates were found to be similar.

Author: Worthington, Robert

Title: Why Career Education

Source: Thrust, 1972, vol. 1, no. 5, pp. 8

The current interest in career education by important segments of the community and government indicates that the time has come for career education to become an integral part of an educational system.

The inadequate preparation of students has resulted in a tremendous waste of financial and human resources. Because of this waste and the present inadequacies in career education, action must be taken in the area of career education for the well being of both students and our nation.

Author: Worthington, Robert M.

Title: Development of Model Career Education Programs Under Part C and Part D of the Vocational Education Amendments of 1968

Source: Presentation at the Commissioner's Conference for Chief State School Officers; Washington, D. C., June 15, 1972, 15 pp. (Eric ED 065 712; MF $.65, HC $3.29)

This presentation describes the process of career education program development as a local school district enterprise, supplemented by financial assistance from state and federal resources. Worthington describes the program in Watertown, South Dakota, and notes that similar ones are under development in Cobb County, Georgia; Riverton, Wyoming; Norwalk, Connecticut; and Mobile, Alabama.

The emphasis at the elementary and junior high school level is on individual development rather than choice of a career. Senior high programs focus on specific career clusters and decision-making situations. Guidance and counseling components are part of the overall programs.

Author: Zytowski, Donald (Ed.)

Title: Vocational Behavior: Readings in Theory and Research

Source: Holt, Rinehart and Winston; New York, 1968, 483 pp., $7.95

This book of readings draws on industrial, social and personal psychology, sociology, and vocational theory to provide an overview of recent developments. It opens with discussions on the nature and meaning of work, and considers maturation, choice, satisfaction, and adjustment. Papers on the developmental nature of vocational behavior and theories of occupational determinants are also presented.

Author: Zytowski, Donald

Title: Psychological Influences on Vocational Development

Source: Career Information and Development, S. C. Stone and B. Shertzer (Eds.). Guidance Monograph Series IV. Houghton Mifflin Company; Boston, 1970, 99 pp., $1.80

Though addressed primarily to guidance counselors in practice or training, Zytowski's monograph has broad implications to teachers and developers of elementary curricular materials. Zytowski's underlying thesis is that "choices which lead to a work role are so interlocked with earlier choices that the person must be conscious of his plans years in advance of actually entering his occupation."

He devotes separate chapters to the components of vocational development, i.e., abilities, interests, values, and personality determinants.

He has a particularly interesting discussion of work roles of women, and holds that, "It is not reasonable to confine women to nurturant jobs, and exclude them from occupations typically held by men." However, he recognizes that the stop-and-start work roles of women, interrupted by marriage and child rearing, make it difficult for them to enter fields which demand constant upgrading of knowledge or skills. He sees that factor as important in the decisions of many young women to choose teaching or retailing jobs, fields in which it is easy to return to work after an interval.

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PART III

CHILDREN'S LITERATURE SURVEY

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Purpose of the Review

This section of the bibliography surveys children's books now available which may prove useful in career education. Librarians can use it to recommend books to students interested in particular careers; teachers can link these books with sections of their study areas; educational developers can use the list in developing career education concepts and instructional materials. The books are resources which serve a variety of uses.

One key reason why children's books, rather than textbooks or commercial instructional materials, are examined is that children's books are the easiest to put into use in a school. In many states, textbooks must be approved by state committees and adopted by the state before they may be purchased for the classroom. In fact, twenty-two states have firm statewide adoption practices. Eighteen states adopt books for four or more years. Most materials are purchased through purchasing departments often only after approval by district curriculum committees. As a result, it takes a long time to incorporate new textbooks into classroom practice. On the other hand, individual children's books of the kind reviewed here are a low-cost resource, readily available in school and public libraries and even in local bookstores. They can be put into use without spending a great deal of time and money.

This guide has three functions:

(1) to give bibliographic information, such as title, author, publisher, price, and age level of the book's readers;

(2) to describe the content of the book; and

(3) to suggest ways the book can be used in career education.

The format of the review will be described in a later section of this introduction.

Selection of Material

One hundred books were selected as samples for inclusion in this section. The books were selected from two general public libraries, a children's library, two school libraries, two public school instructional materials centers, and a university school of education library. A few were purchased at bookstores.

Teachers wishing to augment this list have an excellent source book in *Wilson's Standard Catalog Series*. The Children's Catalog lists 5,000 titles appropriate for elementary grade students, and the Junior High School Library Catalog lists 3,500 titles suitable for that age group. All titles in these catalogs were recommended by the American Association of School Librarians and the Children's Services Division of the American Library Association for library acquisitions. Each entry is annotated. Another useful reference is the University of Chicago's Bulletin of the Center for Children's Books. All these guides can be consulted in selecting children's trade books.

Books pertaining to careers come in several guises. The most explicit are those with forthright titles like *What Lawyers Really Do*, which are patently relevant to career education. But especially at the elementary level, career education is often packed in books where the main characters are children who are introduced by some plot device to a career. In these books, fiction is used as a base for facts. Some books are out-and-out fiction, dealing less with career information than with a conflict over preparation for, or practice of, a career. This is the human side of career education. Other books, especially ones for young children, use fantasy to talk about occupations. Books of all these types were included in the guide. Each has its uses. Suggested uses for particular books are included in their reviews.

An Overview of the Books

These books by and large reflect the society. Concern with job opportunities for minority groups and women is recent. Almost all the books surveyed display the same bias that most employers at least used to. Nearly all the books show men in traditional male occupations and women in traditional female jobs. In discussing jobs which women customarily do not enter, several books neglected to mention that women could enter them if they chose. The problems facing women and minorities as they practice careers were by and large ignored. No doubt a spurt of new books on careers will be published in the next few years to redress this grievance.

Books extreme in their obvious bias were, of course, rejected outright from consideration. But, as indicated, most of the books included here reflect past institutional stereotyping. If a book is noteworthy because it does not show bias -- that is, if minorities or women were prominently shown in positions equal in status to those held by white men -- that information was noted. Attention is also drawn to those books of special interest to minority groups. Of the books included, approximately 10 percent give particular attention to minority groups.

These books also demonstrate the rather narrow view authors have taken of career education. A rounded view of the subject should not only include facts and figures on jobs but also reveal the process of self analysis and of planning and decision making which precedes an intelligent choice of career. The concomitants of a job -- status, leisure time, life style -- also need to be considered in making an intelligent decision. Most books surveyed ignore all these aspects of the field. If a book does consider any of these aspects, or provides information on education and training needed for a particular career, that is noted in the review.

About four-fifths of the books included discuss the topic of jobs and employment. About one-sixth provide information on education and training. Certain occupations tend to be represented out of proportion to their frequency of occurrence in society. The occupation shown most frequently was truck driver (10%). Other occupations given frequent coverage were policemen (9%), nurse (8%), and doctor (7%). In general those occupations typically overrepresented were all forms of science, community service, and business administration. Those clusters with disproportionately low frequency of reference were sales and the various industrial trades.

Format of the Reviews

Each review is in four sections.

Bibliographic information includes author, title, publisher, copyright date, number of pages, and whether the book is illustrated.

Description summarizes the contents. It recounts the plot, describes the format, or tells about the major sections of the book.

Supplementary Information suggests subject areas, age groups, and vocational interests for which the book may be useful. This section has four parts:

a) "Occupational cluster" is the group of occupations described. An occupational cluster is a group of related careers. For example the business-sales cluster includes workers who make possible the transactions between manufacturers of products and customers who need those products through trade activities. It may include those directly involved in selling or in the supervision of selling. Careers in this cluster include sales manager or proprietor. Other examples of clusters are medical and biological sciences and construction trades. Careers in a cluster have points in common, and usually workers in those careers share similar attributes. A cluster is a useful concept because a student who has shown interest or ability in one career may be guided concurrently to other careers in the cluster. Some books include information on more than one cluster.

b) "Occupations" lists specific occupations discussed in the book.

c) "Subject area" is linked to one of four major subject areas: science, social studies, language arts, or mathematics. This listing helps teachers who want to tie career education to appropriate parts of the curriculum. In most cases, the link is clear, but in a few cases it is more arbitrary.

d) "Grade Level" notes which grade level the book is for, as determined by librarians and book publishers.

Comments is the section in which suggestions are made as to situations where the book may be useful -- as a teacher's reference or student reader, for instance -- or topics, such as education and training or job duties, are noted. Comments about unusual features of a book, like lack of bias, are also included here.

Books are not judged as to literary merit; however, the Comments section sometimes makes clear the merit or flaw of a particular book for career education. For instance, some books are out of date either in information or concept; Longfellow's "The Village Blacksmith" (a selection not included here) is obviously not a useful career guide. As noted in the overview, almost all books are dated in that they reflect a job market biased against minority groups; but remedying that situation will itself take several years of publishing.

Although some of the criticisms made by Goodson (1971) are still valid, teachers can still capitalize on what is available if they use it with insight, imagination, and discretion.

An index by occupation to the books surveyed precedes the annotations.

Index by Occupation to Annotations of Children's Books

Occupation	Page Numbers
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Policeman	182 184 185 187 199 207 225 226 241 246
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Occupation	Page Numbers	Occupation	Page Numbers
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Steward	251		
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Truck Driver	172 197 225 236 259 266 267 268		
Typist	225		
Veterinarian	206		
Writer	200 225		
Zoo Keeper	220		

ANNOTATIONS

Author: Adkins, Jan

Title: How a House Happens

Source: Walker and Company; New York, 1972, 29 pp., $4.50

Description

The work of architects and contractors is presented within a make-believe framework. Plans for the construction of a home are shown and the reader learns about some considerations building experts must make including family need, excavation, and adaptation to the site. Some of the steps in building and some of the tools used in the trade are shown.

Supplementary Information

Occupational Clusters:	Engineering, Physical Science, Mathematics, Architecture Construction Trades
Occupations:	Architect Construction Tradesman
Subject Area:	Social Studies
Grade Level:	5 - 7

Comments

The book is well organized and neatly presented. The hand printing in the book is at times hard to read.

Author: Asbell, Bernard

Title: What Lawyers Really Do

Source: Peter H. Wyden; New York, 1970, 114 pp., $3.95

Description

The book features discussions by lawyers involved in many types of practices including family law, corporation law, criminal law, property law, and public representation. Information on how to become a lawyer is also presented.

Supplementary Information

Occupational Cluster:	Humanities, Law, Social and Behavioral Sciences
Occupation:	Lawyer
Subject Level:	Social Studies
Grade Level:	7 - 9

Comments

Two of the six lawyers here are women. Special attention is given to the topic of defense of minorities and the poor. For these reasons and because of the thorough treatment of the legal profession, this book is a comprehensive view of law.

Author: Barr, George

Title: Young Scientist Looks at Skyscrapers: The How and Why of Construction for Sidewalk Superintendents

Source: McGraw-Hill Book Co.; New York, 1963, 159 pp., $3.50

Description

This book describes the construction of large buildings. The book is part of a science series and integrates basic concepts of physics, engineering, and architecture. Detailed accounts of many aspects of the construction trades are presented.

Supplementary Information

Occupational Clusters:	Construction Trades Engineering, Physical Science, Mathematics, Architecture
Occupations:	Building Tradesman Architect Engineer
Subject Area:	Science
Grade Level:	5 - 9

Comments

More a description of principles of building construction than of careers, this book is useful for students and teachers as a resource. No ethnic or sex bias is displayed.

Author: Bendick, Jeanne

Title: The First Book of Supermarkets

Source: Franklin Watts, Inc.; New York, 1954, 41 pp., $3.75

Description

This is a nicely illustrated book which introduces the reader to the many jobs in supermarkets. The operation of the market and the roles of buyers, managers, butchers, truck drivers, and many other store personnel are shown. The book concludes with a section on supermarket history and a description of supermarkets around the world.

Supplementary Information

Occupational Clusters:	Business Administration Business - Clerical Business, Sales General, Community Service, Public Service
Occupations:	See Description
Subject Area:	Social Studies
Grade Level:	K - 3

Comments

This book covers many areas of grocery marketing, presenting a picture of the activities of various personnel in the field. Some of the factual material is out of date.

Author: Bendick, Jeanne

Title: The First Book of Airplanes

Source: Franklin Watts, Inc.; New York, 1958, 69 pp.,
$3.75

Description

This short book covers safety rules, pilot training, and licensing procedures for aspiring pilots. In addition, the book covers various types of aircraft and gives a brief history of aviation dating back to the planes designed by Leonardo da Vinci. Brief mention is also given to persons who are employed in airports.

Supplementary Information

Occupational Cluster:	Business Administration
Occupation:	Pilot
Subject Areas:	Science Social Studies
Grade Level:	2 - 5

Comments

Some information on air careers and necessary education and training is found here.

Author: Bendick, Jeanne

Title: What Made You You

Source: McGraw-Hill Book Company; New York, 1971, 48 pp.
$3.95

Description

This is an excellent book relevant to a child's knowledge of himself. The book explains where babies come from and why some people grow up to be different from others. The reader learns about some basic concepts in genetics and is introduced to the concepts regarding sources of individual differences. The book is a most skillful presentation of a delicate topic.

Supplementary Information

Subject Area:	Science
Grade Level:	2 - 5

Comments

The book seems entirely free from ethnic and sex bias. It covers an important and difficult issue in a gentle manner and is unusually well done.

Author: Bixby, William

Title: Skywatchers: The United States Weather Bureau in Action

Source: David McKay Co., Inc.; New York, 1962, 178 pp., $4.50

Description

This book describes the activities of weathermen in weather stations located in Maine, New York, and Washington. Information on how to become a weatherman is presented and the reader is given tips for setting up his own home weather station.

Supplementary Information

Occupational Cluster:	Engineering, Physical Science, Mathematics, Architecture
Occupation:	Meteorologist
Subject Area:	Science
Grade Level:	7 - 9

Comments

The book is a thorough treatment of the activities of a meteorologist, with some information on the education and training required.

Author: Bixby, William

Title: Seawatchers: Oceanographers in Action

Source: David McKay Co., Inc.; New York, 1967,
215 pp., $4.25

Description

This book thoroughly describes a routine voyage of an oceanographic research expedition. It presents information on how oceanographic research is conducted and the value of such research for mankind. Topics include farming the sea for minerals and medical products, and the application of new technologies to the study of oceanography.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupation:	Oceanographer
Subject Area:	Science
Grade Level:	7 - 9

Comments

None

Author: Bonner, M. G.

Title: The Real Book About Journalism

Source: Garden City Books; Garden City, New York,
1960, 216 pp., $1.95

Description

Readers are introduced to the art of journalism. The book discusses the development of journalism and the history of newspaper reporting with focus on famous journalists such as William Randolph Hearst and Joseph Pulitzer. Both reporting and editing are given detailed coverage.

Supplementary Information

Occupational Cluster:	Humanities, Law, Social and Behavioral Sciences
Occupations:	Newspaper Reporter Newspaper Editor
Subject Area:	Language Arts
Grade Level:	7 - 9

Comments

None

Author: Bontemps, Arna

Title: Famous Negro Athletes

Source: Dodd, Mead & Co.; New York, 1964, 155 pp., $3.50

Description

The lives of a series of famous Negro athletes are presented. Biographies of Joe Lewis, Sugar Ray Robinson, Jackie Robinson, LeRoy Paige, Willie Mays, Jesse Owens, Wilt Chamberlain, Jim Brown, and Althea Gibson are included. Emphasis is given to personal struggles on the road to success.

Supplementary Information

Subject Area: Social Studies, especially Black Studies

Grade Level: 7 - 9

Comments

Useful as both a student reader and teacher's resource, the book is relevant to the struggle of blacks in the United States. It can be used to help students assess their personal goals.

Author: Boyd, Claud C. and DeVault, M. Vere

Title: Physics

Source: Steck-Vaughn Co.; Austin, Texas, 1959, 48 pp., $2.95

Description

This text presents the introductory principles of physics. Some of the topics presented include heat, properties of gases, electricity, sound, and others.

Supplementary Information

Occupational Cluster:	Engineering, Physical Science, Mathematics, Architecture
Occupation:	Physicist
Subject Area:	Science
Grade Level:	3 - 7

Comments

Some information about careers in electronics and physics may be found here, along with information on education and training. But, the book as a whole, is only indirectly related to career education.

Author: Carona, Philip

Title: The True Book of Chemistry

Source: Childrens Press; Chicago, 1962, 47 pp., $3.50

Description

A first introduction to chemistry is presented in this primary grade level text. The book covers the topics of elements, chemical symbols, atoms and molecules, compounds, chemical change and many others.

Supplementary Information

Occupational Cluster:	Engineering, Physical Science, Mathematics, Architecture
Occupation:	Chemist
Subject Area:	Science
Grade Level:	2 - 5

Comments

Little specific information on the job activities of a chemist is given.

Author: Carroll, Sydney D.

Title: You Be The Judge

Source: Lothrop, Lee, & Shepard Co.; New York, 1971
48 pp., $3.95

Description

The book describes thirteen legal cases and asks the reader to come to his own judgments of the outcome for each of the cases. The court's verdict is printed upside down on the page following the description of each legal case. The reader may compare his own decision with that reached by the court. The book is attractively illustrated with cartoon figure drawings.

Supplementary Information

Occupational Cluster:	Humanities, Law, Social and Behavioral Sciences
Occupations:	Lawyer Judge
Subject Area:	Social Studies
Grade Level:	5 - 9

Comments

This book provides basic exercises in decision making for children at the middle school and junior high school levels. The clearly presented material may have implications for readers in their own personal decision making about careers.

Author: Chapin, Cynthia

Title: Squad Car 55

Source: Albert Whitman & Co.; Chicago, 1966, 29 pp., $2.50

Description

This is a simple primer showing roles of police officers engaged in a variety of daily tasks. Police training and different types of police work are covered. Attention is also given to different types of police work (e.g., FBI, Secret Service) and to the uniforms worn by policemen in different countries throughout the world.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service
Occupation:	Policeman
Subject Area:	Social Studies
Grade Level:	K - 2

Comments

None

Author: Colby, C. B.

Title: Coast Guard Academy: Cadets, Training, and Equipment

Source: Coward, McCann, and Geoghegan, Inc.; New York, 1965,
48 pp., $3.49

Description

Colby describes the life at the United States Coast Guard Academy from the time a young man is accepted there until his graduation. Most of the pages describe the life at the military academy, types of training one receives, and the ultimate goals of this training. Military tradition is heavily emphasized.

Supplementary Information

Occupational Clusters:	Business Administration Engineering, Physical Science, Mathematics, Architecture
Occupations:	Military Officer Engineer Navigator
Subject Area:	Social Studies
Grade Level:	7 - 9

Comments

The book is especially useful to students with military ambitions. It is perhaps of lesser interest to girls.

Author: Colby, C. B.

Title: Secret Services: History, Duties, and Equipment

Source: Coward, McCann, and Geoghegan, Inc.; New York, 1966,
48 pp., $3.49

Description

This book presents a description of the role of the United States Secret Service. Attention is given to the history of the Secret Service, the duties of Secret Service agents, and the equipment and procedures used in law enforcement. Special attention is given to the apprehension of counterfeiters and the protection of Presidents. Descriptions of the qualifications and the training necessary to enter the Secret Service are also provided.

Supplementary Information

Occupational Clusters: General, Community Service, Public Service

Occupation: Law Enforcement Worker

Subject Areas: Social Studies
Science

Grade Level: 5 - 7

Comments

The book provides a fairly broad view of the world of work of law enforcement officers.

Author: Colby, C. B.

Title: F.B.I.: The G-Man's Weapons and Tactics for Combating Crime

Source: Coward, McCann, and Geoghegan, Inc.; New York, 1970, 48 pp., $3.29

Description

The role and duty of the FBI are described in this book. A major portion of the book is devoted to methods of police investigation. Police technology is described in great detail. Attention is given both to the role of the FBI agent and the role of the police laboratory technician. FBI training is also described.

Supplementary Information

Occupational Clusters: General, Community Service,
Public Service
Technical

Occupations: Policeman
Laboratory Technician

Subject Areas: Social Studies
Science

Grade Level: 3 - 6

Comments

Information is presented on the duties of these jobs and their prerequisite education and training. The topics are treated thoroughly.

Author:	Colby, C. B.
Title:	Park Rangers: The Work, Thrills, and Equipment of the National Park Rangers
Source:	Coward, McCann, and Geoghegan, Inc.; New York, 1971, $3.49

Description

This is a book about the lives and duties of park rangers. Systematic descriptions of the various duties of the rangers during summer and winter are given. The reader is provided a good description of life in the forest service.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service
Occupation:	Park Ranger
Subject Areas:	Social Studies Science
Grade Level:	3 - 8

Comments

This book presents information on the duties of forest rangers in a thorough manner.

Author: Colby, C. B.

Title: Police: Skill and Science Combat Crime

Source: Coward, McCann, and Geoghegan, Inc.; New York, 1971,
48 pp., $3.49

Description

This book gives special attention to police equipment and the applications of technology to police work. Attention is given to routine police work and police training. Special attention is also given to the value of technical equipment in police work.

Supplementary Information

Occupational Clusters: General, Community Service,
Public Service
Technical

Occupations: Policeman
Laboratory Technician

Subject Areas: Social Studies
Science

Grade Level: 7 - 9

Comments

This book is a thorough treatment of the duties of police workers and of the education and training needed for the careers.

Author: Cole, L. D.

Title: Linda Goes to the Hospital

Source: Coward, McCann, and Geoghegan, Inc.; New York, 1953,
48 pp., $2.00

Description

This story is about a girl who becomes afflicted with appendicitis and goes to the hospital to have her appendix removed. The book emphasizes the girl's personal experience and does not go into great detail about the roles of the doctors, nurses, etc.

Supplementary Information

Occupational Clusters:	Medical and Biological Sciences
Subject Area:	Science
Grade Level:	K - 4

Comments

Little specific factual material about careers is presented here. As a minor focus of the book, some information about the jobs of doctors and nurses is conveyed.

Author: Collier, James Lincoln and Joel, Yale

Title: A Visit to a Firehouse

Source: W. W. Norton & Co., Inc.; New York, 40 pp., $3.00

Description

A group of boys visit a firehouse. They learn all about the lives of firemen, the equipment they use, and the activities the firemen experience in the fire station.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Fireman
Subject Area:	Social Studies
Grade Level:	1 - 3

Comments

This book differs from others on the same topic in that it deals only with life within the fire station. Little factual information is presented.

Author: Cooke, David C.

Title: Behind the Scenes in Motion Pictures

Source: Dodd, Mead & Co.; New York, 1960, 64 pp., $3.95

Description

An explanation of the unseen work which goes into the production of motion pictures is presented in this book. The story shows the procedures involved in film making from the inception of the idea through the film production, editing, and final preparation for the audience.

Supplementary Information

Occupational Clusters: Fine and Performing Arts
Technical

Occupations: Film Editor
Cameraman
Actor/Actress

Subject Area: Social Studies

Grade Level: 5 - 8

Comments

While the book is slightly out of date, the duties of people in film occupations are covered thoroughly.

Author: Cooke, David C.

Title: How Books Are Made

Source: Dodd, Mead & Co.; New York, 1963, 63 pp., $3.95

Description

Author Cooke takes the reader on a tour of a publishing house. Pictures illustrate type setting, production, and printing press operation. The book seems to familiarize the reader with many terms of the printing trade such as galley proofs and offset printing.

Supplementary Information

Occupational Cluster:	Mechanics, Industrial Trades
Occupations:	Compositor Pressman Related Press Activities Worker
Subject Areas:	Language Arts Social Studies
Grade Level:	4 - 6

Comments

While some of the material is out of date, the job duties connected with press activities are thoroughly covered.

Author: Coombs, Charles

Title: Aerospace Pilot

Source: William Morrow & Co., Inc.; New York, 1964,
224 pp., $5.75

Description

This book describes the path of a young man as he enters training and eventually becomes a test pilot. Attention is given to the training and skills necessary to operate high speed aircraft. The pitfalls as well as the glories which go with the job are shown.

Supplementary Information

Occupational Clusters:	Business Administration Engineering, Physical Science, Mathematics, Architecture
Occupations:	Pilot Engineer
Subject Areas:	Mathematics Social Studies Science
Grade Level:	7 - 9

Comments

This book presents information on job duties of the occupations covered and also on the education and training necessary. It is a thorough treatment of the subject.

Author: Cross, Wilbur and Graves, Susan

Title: The New Age of Medical Discovery

Source: Hawthorn Books, Inc.; New York, 1972, 119 pp.,
$4.95

Description

This is perhaps the most up-to-date book available on new advances in medical technology. Fascinating research advances in outer-space medicine, cancer research, cryogenic medicine, ultrasound surgery and transplants are skillfully described in an easy to read style. Supplementary pages present chronologies of medical discoveries and a glossary of medical terms.

Supplementary Information

Occupational Cluster: Medical and Biological Science

Occupations: Medical Researcher
Doctor

Subject Area: Science

Grade Level: 7 - 9

Comments

This book is interesting and up to date.

Author: DeRossi, Claude J.

Title: Computers: Tools for Today

Source: Childrens Press; Chicago, 1972, 95 pp., $3.56

Description

The history of mechanical calculating, the functioning of contemporary computers, and basic principles in computer programming are presented in this book. Complex topics such as binary systems, flow charting, and program development are discussed in the text. The author emphasizes the capacities of computers, but also points out some of their limitations.

Supplementary Information

Occupational Cluster:	Technical
Occupation:	Computer Programmer
Subject Area:	Science
Grade Level:	4 - 6

Comments

This book is an excellent introduction to concepts in computer science and may be especially useful for students who have expressed interest in computer areas.

Author: Dodge, Bertha S.

Title: Engineering Is Like This

Source: Little, Brown & Co.; Boston, 1963, 199 pp., $4.95

Description

This book describes the work of civil engineers with emphasis on great feats in the field of engineering. Praise for engineers is provided in many places in the text, and some basic principles are described. Some work duties are presented.

Supplementary Information

Occupational Cluster:	Engineering, Physical Science, Mathematics, Architecture
Occupation:	Civil Engineer
Subject Area:	Science
Grade Level:	7 - 9

Comments

None

Author: Elting, Mary

Title: First Book of Nurses

Source: Franklin Watts, Inc.; New York, 1951, 38 pp.,
$1.95

Description

This book discusses the work of nurses in city and country settings. Attention is given to nurses working in rural, urban, school, and hospital locations. In addition, some description of training for the nursing profession is given.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupation:	Nurse
Subject Areas:	Social Studies Science
Grade Level:	3 - 5

Comments

The book discusses the duties of nurses as well as the education and training needed for the career. The role nurses play in a community is stressed.

Author: Elting, Mary

Title: Trucks at Work

Source: Harvey House, Inc.; Irvington-on-Hudson, New York,
1965, 93 pp., $3.50

Description

A description of a variety of trucks and an explanation of the services truck drivers provide are presented in this book. The major emphasis of the book is on how different types of trucks are used for different tasks. The roles of the various tasks of truck drivers are also explained.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Truck Driver
Subject Area:	Social Studies
Grade Level:	3 - 6

Comments

Information about the duties of truck drivers is presented. Although some factual information is out of date, the treatment is generally thorough.

Author: Epstein, Samuel and Epstein, Beryl

Title: George Washington Carver: Negro Scientist

Source: Garrard Publishing Co.; Chicago, 1960, 79 pp., $2.59

Description

This biography describes how Carver left his home and struggled for an education. Carver's career at Iowa State University and his teaching and research activities at the Tuskegee Institute are portrayed.

Supplementary Information

Occupational Clusters: Humanities, Law, Social and Behavioral Sciences
Medical and Biological Sciences

Occupations: Biological Scientist
College Professor

Subject Areas: Social Studies
Science

Grade Level: 2 - 5

Comments

The book is especially relevant to the importance of education and training in preparing for a career. Some information is also presented on the activities involved in Dr. Carver's occupations. The book is useful for black studies.

Author: Ferris, Helen (Ed.)

Title: Time of Starting Out

Source: Franklin Watts, Inc.; New York, 1962, 203 pp., $4.95

Description

This is a collection of stories describing the first day on the job for girls involved in various occupations. The jobs include office worker, stenographer, nurse, flowershop attendant, hospital aide, actress, babysitter, proofreader, houseworker, copygirl, policewoman, store clerk, navy nurse, and teacher.

Supplementary Information

Occupational Clusters:	Business - Clerical Fine and Performing Arts General, Community Service, Public Service General Teaching and Social Service Humanities, Law, Social and Behavioral Sciences Medical and Biological Sciences
Occupations:	See Description
Subject Areas:	Mathematics Language Arts Social Studies Science
Grade Level:	7 - 9

Comments

The occupations presented perpetuate traditional female roles. Little specific, factual material is presented in these fictionalized accounts; however, inferences about real-life on-the-job activities might be made.

Author: Fitzhugh, Louise

Title: Harriet the Spy

Source: Dell Publishing Co., Inc.; New York, 1964, 289 pp.,
$.95

Description

Sixth-grader Harriet Welch wants to be a writer and she is not waiting to grow up. Armed with a pen and notebook, she keeps detailed notes about everyone she sees and talks with. Several other careers and life styles are encountered during the course of this lively story, and Harriet learns something about getting along with people, too.

Supplementary Information

Occupational Cluster:	Humanities, Law, Social and Behavioral Sciences
Occupation:	Writer
Subject Area:	Language Arts
Grade Level:	7 - 9

Comments

Despite the lack of factual material, this is an interesting novel about coming to an understanding of one's self, which is a prelude to career selection.

Author: Floherty, John J.

Title: Forest Ranger

Source: J. B. Lippincott, Co.; Philadelphia, 1956, 142 pp.,
$4.50

Description

This book describes careers in forestry. The stories present information on conservation and provide illustrative examples of the responsibilities of a forest ranger. The topics covered in the book include fire fighting, conservation of wild life, regulation of forested areas, and battles against insects.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Forest Ranger
Subject Areas:	Social Studies Science
Grade Level:	7 - 9

Comments

This is a thorough treatment of the job duties of the forest ranger.

Author: Flora, James

Title: Fishing With Dad

Source: Harcourt Brace Jovanovich, Inc.; New York, 1967,
27 pp., $3.50

Description

The book tells the story of a young boy who goes on a deep sea fishing trip with his father. While out at sea, they have to endure a day of heavy fog and in the end must be rescued by the Coast Guard when they accidentally trap a torpedo within their fishing nets.

Supplementary Information

Subject Areas:	Social Studies Language Arts
Grade Level:	K - 4

Comments

While this book does not focus on particular occupations, it is relevant to a discussion of the use of leisure time.

Author: Glassner, Sherwin S. and Grossman, Edward N.

Title: How the American Economic System Functions

Source: Benefic Press; Westchester, Illinois, 1968, 96 pp., $1.95

Description

This book is a clearly written and well organized summary of the basic concepts of capitalism. Topics covered in this book include how capitalism functions, how businesses are organized, the organization of labor unions, the effect of business on government, the function of taxes, and the benefits and problems of the American economy.

Supplementary Information

Subject Area:	Social Studies
Grade Level:	7 - 9

Comments

This somewhat thorough coverage of economic concepts is useful as a teacher's reference as well as part of the curriculum materials for student use.

Author: Goodspeed, J. M.

Title: Let's Go to Watch a Building Go Up

Source: G. P. Putnam's Sons; New York, 1956, 43 pp., $2.68

Description

A young boy and girl observe the construction of a building. They first watch the architect as he works on the plans for the building. They then observe the ground breaking and watch the gradual construction of the building until it is completed.

Supplementary Information

Occupational Clusters:	Construction Trades Engineering, Physical Science, Mathematics, Architecture
Occupations:	Construction Tradesman Architect
Subject Areas:	Social Studies Science
Grade Level:	K - 3

Comments

None

Author: Greene, Carla

Title: I Want to be a Musician

Source: Childrens Press; Chicago, 1962, 29 pp., $3.00

Description

This book about music also gives a brief history of music and musical instruments. The book begins with pictures of ancient instruments which cavemen might have created, and continues until modern string, reed, and brass instruments are shown. In the final page, children are shown playing their instruments in the school orchestra.

Supplementary Information

Occupational Cluster:	Fine and Performing Arts
Occupation:	Musician
Subject Area:	Social Studies
Grade Level:	K - 2

Comments

The activities of musicians are described here in a thorough form for children of this age.

Author: Greene, Carla

Title: Animal Doctors: What Do They Do?

Source: Harper & Row, Publishers; New York, 1967, 64 pp., $2.50

Description

This book provides a general introduction to the tasks of a veterinarian. It explains the training necessary for the veterinary medicine profession and the varieties of practices available to veterinarians. The story shows an urban pet clinic, a rural veterinary practice, a veterinarian employed by a zoo, and a veterinarian employed by a circus.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupation:	Veterinarian
Subject Area:	Science
Grade Level:	K - 2

Comments

This book is a comprehensive description of the duties of a veterinarian. Some attention is paid to the prerequisite education and training. No ethnic or sex bias is evident.

Author: Greene, Carla and Kessler, Leonard

Title: What Do They Do, Policemen and Firemen

Source: Harper & Row, Publishers; New York, 1962,
$2.50

Description

What Do They Do is a book aimed at children in the lower grades. The first section describes the work of a policeman, and the second describes the duties of a fireman. The duties and functions of these two types of public service occupations are presented.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupations:	Policeman Fireman
Subject Area:	Social Studies
Grade Level:	K - 3

Comments

These occupational descriptions are not covered in great detail, but they may be sufficient for a beginning reader audience.

Author: Greene, Carla and Kessler, Leonard

Title: Railroad Engineers and Airplane Pilots: What Do They Do?

Source: Harper & Row, Publishers; New York, 1964,
$2.50

Description

This book presents careers in the two occupations named in its title to children in primary grades. Emphasis is given to the training one must accomplish before he enters one of these professions.

Supplementary Information

Occupational Clusters:	Business Administration General, Community Service, Public Service
Occupations:	Pilot Locomotive Engineer
Subject Area:	Social Studies
Grade Level:	K - 3

Comments

Activities of men engaged in these careers are covered somewhat thoroughly, but many of the facts appear to be somewhat out of date.

Author: Greene, Carla and Kessler, Leonard

Title: Cowboys: What Do They Do?

Source: Harper & Row, Publishers; New York, 1972, 64 pp.,
$2.50

Description

This is a short book about the work of the contemporary cowboy. Pleasant illustrations of ranches and rodeos make the text palatable, although the work of the cowboy seems more related to TV fantasy than to reality.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Occupation: Ranch Hand

Subject Area: Social Studies

Grade Level: K - 3

Comments

None

Author: Hine, Al and Alcorn, John

Title: Money Round the World

Source: Harcourt Brace Jovanovich, Inc.; New York, 1963,
34 pp., $3.99

Description

This is a beautifully illustrated book showing money from a variety of cultures and describing how and why money is used. A major portion of the book is devoted to U.S. coin and paper money, how it is made and what it represents.

Supplementary Information

Subject Area:	Social Studies
Grade Level:	2 - 5

Comments

The value of this book is its explanation of some basic economic concepts.

Author: Hoffman, Elaine and Hefflefinger, Jane

Title: About Helpers Who Work at Night

Source: Melmont Publishers; Chicago, 1963, 32 pp., $3.00

Description

This book provides a look at occupations which employ people in the non-daylight hours. Some of the jobs which are described include baker, nurse, janitor, fireman, service station attendant, and many others.

Supplementary Information

Occupations:	See Description
Subject Area:	Social Studies
Grade Level:	2 - 5

Comments

Although the book covers a wide variety of topics, no one topic is explored in detail. Its main value is introducing the child to the concept of unconventional work hours.

Author: Ipcar, Dahlov

Title: One Horse Farm

Source: Doubleday & Co., Inc.; New York, 1950, 33 pp., $3.95

Description

One Horse Farm is a story about a farm run on the power of a single horse. The horse assists in plowing and in the hauling of material. At the conclusion of the story, the horse is replaced by a tractor.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Farm Worker
Subject Area:	Social Studies
Grade Level:	K - 2

Comments

As career material, the information here is somewhat superficial and outmoded. However, inferences might be made about the implications of mechanization and automation.

Author: Iritani, Chika A.

Title: I Know a Baker

Source: G.P. Putnam's Sons; New York, 1969, 47 pp., $2.86

Description

This book tells the story of a boy who visits his uncle's bakery. It provides an introduction to the activities in a bake shop. Although major attention is given to the roles of the baker, other employees including sales personnel and custodians are also shown. The nicely illustrated book is a member of the "A Community Helper" book series.

Supplementary Information

Occupational Clusters:	Business, Sales General, Community Service, Public Service
Occupations:	Proprietor Sales Clerk Custodian
Subject Area:	Social Studies
Grade Level:	1 - 3

Comments

The book describes many aspects of operating a small business, with good treatment of the role of the baker for readers at this level. No ethnic or sex basis is apparent.

Author: Jackson, David

Title: Wonderful World of Engineering

Source: Doubleday & Co., Inc.; New York, 1970, 96 pp., $3.95

Description

This book displays numerous architectural masterpieces and describes the work of the several engineers who made them possible. The roles of the workers who risked their lives in constructing them are also described.

Supplementary Information

Occupational Clusters:	Construction Trades Engineering, Physical Science, Mathematics, Architecture
Occupations:	Civil Engineer Architect Construction Tradesman
Subject Areas:	Science Social Studies
Grade Level:	7 - 9

Comments

This is a thorough and up-to-date coverage of the topic.

Author: Jacobs, Susan

Title: On Stage: The Making of a Broadway Play

Source: Alfred A. Knopf, Inc.; New York, 1972, 111 pp., $4.95

Description

On Stage is an engaging description of the mechanics of theatrical production. Play production involves many steps including: obtaining financial backing, choosing a cast, revising the script, rehearsing, etc. The author of On Stage follows a Broadway production through each of these stages. Featured in the text are interviews with actors, technicians, and critics.

Supplementary Information

Occupational Cluster:	Fine and Performing Arts
Occupation:	Actor, Actress
Subject Area:	Language Arts
Grade Level:	7 - 9

Comments

This book is detailed and gives a clear description of the theatrical professions in a warm personal style of prose.

Author: Jonas, Jane

Title: Computers

Source: Crowell Collier & Macmillan, Inc.; New York,
1972, 33 pp., $3.75

Description

Concepts in computer science are presented in this elementary school text. Light examples such as "counting giraffes met on the way to school" are used to illustrate data which may be processed by the computer. The use of flow charts in programming and the feeding of data into the machine are discussed.

Supplementary Information

Occupational Cluster:	Technical
Occupation:	Computer Programmer
Subject Area:	Science Mathematics
Grade Level:	2 - 4

Comments

Computer programming is a complicated and technical subject which this book presents gently. It gives the student a general introduction without introducing complicated detail.

Author: Kay, Eleanor

Title: First Book of Nurses

Source: Franklin Watts, Inc.; New York, 1968, [illegible] pp.,
$3.75

Description

A wide variety of nursing activities is covered, including many nursing specialties both in and away from the hospital. Some attention is also given to the future of nursing and schools of nursing.

Supplementary Information

Occupational Clusters: Medical and Biological Sciences

Occupation: Nurse

Subject Area: Science

Grade Level: 5 - 7

Comments

The book is a thorough treatment of the duties of nurses and of the education and training needed for the career - a comprehensive summary.

Author: Kay, Eleanor

Title: Nurses and What They Do

Source: Franklin Watts, Inc.; New York, 1968, 123 pp.,
$3.95

Description

The different roles and functions of nurses are presented in this book. Ms. Kay presents descriptions of medical, surgical, maternity, pediatric, operating room, recovery room, intensive care, psychiatric, clinic, public health, industrial, and specialty area nursing. Other topics include men in nursing, hospital administration, and nursing in the armed forces. Information about training for the nursing profession and lists of nursing and professional schools are also presented.

Supplementary Information

Occupational Clusters:	Medical and Biological Sciences
Occupation:	Nurse
Subject Area:	Social Studies

Comments

The book is a comprehensive summary of the field of nursing. It may be used by students themselves or by teachers as a reference. The book is relevant to the nurse's role in today's society.

Author: Kingman, Lee

Title: The Year of the Raccoon

Source: Houghton Mifflin Co.; Boston, 1966, 246 pp., $4.25

Description

This is an interesting novel about a gifted young musician who is unsure of his own abilities and about what may become of his life. The book presents realistic problems such as adolescent alienation and conflicts with parents.

Supplementary Information

Occupational Cluster:	Fine and Performing Arts
Occupation:	Musician
Subject Area:	Language Arts
Grade Level:	6 - 8

Comments

Instead of factual material, the stress in this book is on decision making and planning. The book is useful as a portrayal of a nearly universal adolescent problem and its bearing on career pursuit.

Author: Klagsbrun, Francine

Title: Read About the Parkman

Source: Franklin Watts, Inc.; New York, 1971, 72 pp., $3.75

Description

This book describes the roles of people employed by departments of parks and recreation. Jobs described in the book include recreation leader, playground assistant, story teller, life guard, horticulturist, landscape architect, gardener, zoo keeper, grounds keeper, and many others. In addition, the reader learns about local, state and national parks and how they are operated.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service General Teaching and Social Service Medical and Biological Sciences
Occupations:	See Description
Subject Areas:	Social Studies Science
Grade Level:	K - 3

Comments

The book discusses a wide variety of occupations, and presents an overview of their interrelationship in the operation of park systems.

Author: Lens, Sidney

Title: Unions and What They Do

Source: G. P. Putnam's Sons; New York, 1968, 160 pp.,
$3.86

Description

Unions and What They Do describes the history, structure, and role of labor unions in modern political and economic life. The book discusses the necessity of unions and evaluates the advantages and disadvantages of the labor movement within a contemporary society.

Supplementary Information

Subject Area:	Social Studies
Grade Level:	7 - 9

Comments

This explanation related to economic concepts is also relevant in part to a knowledge of working conditions and how these are influenced by unions.

Author: Lenski, Lois

Title: Little Train

Source: Harry Z. Walck, Inc.; New York, 1940, 44 pp., $3.75

Description

Little Train is a picture book which describes a short train journey. It describes the work day for a train engineer. Drawings illustrate the book.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Occupation: Locomotive Engineer

Subject Area: Social Studies

Grade Level: K - 2

Comments

Some material is out of date, e.g., the engineer's assistant is shown shoveling coal for power. Little specific information about the occupation of locomotive engineer can be gained from the book. However, students in elementary grades should be able to read the book on their own and enjoy this classic children's publication.

Author: Lenski, Lois

Title: Little Farm

Source: Henry Z. Walck, Inc.; New York, 1942, 46 pp.,
$3.75

Description

The *Little Farm* portrays Farmer Small as he goes through his daily activities. The farmer is shown feeding the animals, milking the cows, driving a truck, picking apples, and selling his produce at a stand. Illustrations are amusing and nicely done.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Occupation: Farmer

Subject Area: Social Studies

Grade Level: K - 2

Comments

While specific factual material is out-of-date, some knowledge of a farmer's activities is presented. Women are absent from both pictures and text.

Author: Lenski, Lois

Title: Papa Small

Source: Henry Z. Walck, Inc.; New York, 1951, 23 pp., $3.75

Description

The book describes a day in the life of a family. Considerable attention is given to activities in the home. At the beginning of the book, the father of the family is shown going to work, but most of the text shows the family at home. The book discusses the organization of household activities. Household duties of each member of the family are described.

Supplementary Information

Occupation:	Homemaker
Subject Area:	Social Studies
Grade Level:	K - 2

Comments

This book covers many household activites but is unlikely to teach the child anything new. However, the familiarity of the topic may make it especially useful as a student reader.

Author: Lenski, Lois

Title: When I Grow Up

Source: Henry Z. Walck, Inc.; New York, 1960, 48 pp., $3.50

Description

This book is a children's read-and-sing presentation, covering a variety of occupations which children might enter when they join the work world. Included for boys are songs about the occupations of sea captain, airplane pilot, cowboy, farmer, storekeeper, truck driver, doctor, fireman, milkman, police officer, and railroad engineer. Songs for girls cover the careers of dancer, singer, musician, typist, author, teacher, clerk, nurse, librarian, cook, and mother.

Supplementary Information

Occupational Clusters:	Business Administration Business, Sales Fine and Performing Arts General Teaching and Social Service General, Community Service, Public Service Medical and Biological Sciences
Occupations:	See Description
Grade Level:	K - 2

Comments

The book displays a strong bias against women. Songs for boys describe male-oriented occupations, while those for girls describe traditional female roles. The book does demonstrate that many work options are avilable. Little material of a specific, factual nature is presented.

Author: Lenski, Lois

Title: Policeman Small

Source: Henry Z. Walck, Inc.; New York, 1962, 46 pp., $3.75

Description

Policeman Small is about the role of a traffic control officer. This nicely illustrated book reports a hectic day in the life of a small town policeman. Policeman Small is shown performing the various duties of his job, such as directing traffic, escorting children across the street, and arbitrating disputes.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Occupation: Policeman

Subject Area: Social Studies

Grade Level: K - 2

Comments

The policeman's duties as shown here are only a small portion of what a policeman actually does. Pictures of ethnic minorities are absent.

Author: Lent, Henry B.

Title: Men at Work on the West Coast

Source: G.P. Putnam's Sons; New York, 1968, 127 pp.,
$3.60

Description

This is a reasonably up-to-date survey of the many job opportunities available on the west coast of the United States. The book covers jobs in steel and aluminum mills, fisheries, agriculture, industry, and many others.

Supplementary Information

Occupational Clusters:	(comprehensive listing)
Occupations:	(extensive coverage)
Grade Level:	5 - 7

Comments

The book discusses many jobs in some detail. The emphasis is on job activities.

Author: Lewis, Alfred

Title: Behind the Scenes in a Post Office

Source: Dodd, Mead, & Co.; New York, 1965, 63 pp., $3.95

Description

This book presents a thorough description of many aspects of the U.S. Postal Service. The book shows several types of post offices, describes four classes of mail, and explains how mail is delivered. The reader becomes aware of how a letter moves from one station to another within the postal system. Attention is given to the roles of various post office personnel.

Supplementary Information

Occupational Clusters:	Business - Clerical General, Public Service, Community Service
Occupations:	Mailman Postal Clerk Office Machine Operator
Subject Area:	Social Studies
Grade Level:	6 - 9

Comments

None

Author: Lobsenz, Norman M.

Title: First Book of Peace Corps

Source: Franklin Watts, Inc.; New York, 1968, 66 pp.,
$3.75

Description

This book offers an introduction and description of the Peace Corps including history, nature of the organization, and its goals. Also described are the function of the Peace Corps for the betterment of human life and the role of the Corps in helping to attain world peace.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service General Teaching and Social Service Humanities, Law, Social and Behavioral Sciences
Occupations:	Teaching Community Work
Subject Area:	Social Studies
Grade Level:	7 - 9

Comments

This book shows neither ethnic nor sex bias. It is relevant to modern social issues and points up the theme of social responsibility and emphasizes the education and training generally necessary for the world of work.

Author: Lotspeich, William D.

Title: How Scientists Find Out

Source: Little, Brown, & Co.; Boston, 1965, 151 pp.,
$4.50

Description

The scientific method with applications to medicine and biochemistry is presented in this book. Illustrative examples describe the application of the method to the discovery of vitamin K, hormonal research, pharmacological research, and to the testing of Darwin's theory.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Subject Area:	Science
Grade Level:	8 - 9

Comments

The activities of scientists are the main career focus of this book, which presents the scientific method in great detail. The material is still up-to-date.

Author: McCall, Edith S.

Title: How Do We Get Our Mail

Source: Benefic Press; Westchester, Illinois, 1961, 48 pp.,
$3.95

Description

This book is a nicely done description of the U.S. Mail Service. With the help of color illustrations, the text explains the movement of a letter from the time it is deposited in the mailbox until it is delivered to a home.

Supplementary Information

Occupational Clusters: Business - Clerical
General, Community Service,
Public Service

Occupations: Mailman
Postal Clerk

Subject Area: Social Studies

Grade Level: 2 - 3

Comments

Information on activities of several post office occupations is presented. Although the photographs show a number of black workers, the numerous other illustrations fail to represent them. The book could be used as a student reader.

Author: McGovern, Ann

Title: If You Lived With The Circus

Source: Four Winds Foundation; Berkeley, Calif., 1972,
64 pp., $4.12

Description

If You Lived With The Circus is a question and answer book about circus life. The informal style and pleasant pictures make the book most appealing. Many of the questions in the book present the "how's" of circus entertainment. For example, some of the questions that the book presents and answers include, "How do you put on clown make-up," and "How old do you have to be to perform in the circus."

Supplementary Information

Occupational Cluster:	Fine and Performing Arts
Occupation:	Circus Performer
Subject Area:	Social Studies
Grade Level:	2 - 4

Comments

The book provides a comprehensive view of the circus world. The life styles of circus personnel and their families are described and pictured. The reader also learns about some of the less often mentioned aspects of circus entertainment including: safety precautions, training, and make-up.

Author: Markun, Patricia Maloney

Title: First Book of Politics

Source: Franklin Watts, Inc.; New York, 1970, 62 pp., $3.75

Description

An introduction into the realities of contemporary politics is offered in this presentation. Uses and abuses of political power are brought into the open as the reader learns about the necessities for political survival.

Supplementary Informaton

Occupational Clusters:	Business Administration Humanities, Law, Social and Behavioral Sciences
Occupation:	Politician
Subject Area:	Social Studies
Grade Level:	7 - 9

Comments

This book is unusually relevant to contemporary social issues. Attention is given to both the politicians' activities and to the topic of social responsibility.

Author: Meader, Stephen W.

Title: Bulldozer

Source: Harcourt Brace Jovanovich, Inc.; New York, 1951,
239 pp., $.65

Description

This is a novel about a boy just out of school who finds an old sunken tractor while out fishing. The boy repairs the tractor and develops his own business around the large machine. At the conclusion of the book, the boy is awarded a contract over an unscrupulous and wicked competitor.

Supplementary Information

Occupational Clusters:	Business, Sales Construction Trades General, Community Service, Public Service
Occupations:	Proprietor Truck Driver
Subject Area:	Social Studies Language Arts
Grade Level:	7 - 9

Comments

In the course of the novel, a portrayal of the job activities of building contractors and truck drivers is offered. The novel may also be useful in discussing characteristics it takes to start and build one's own business.

Author: Mitchell, Barbara

Title: Let's Go To The Peace Corps

Source: G. P. Putnam's Sons; New York, 1968, 48 pp., $2.68

Description

The book describes a young man's preparation for work on a Peace Corps project in the Philippines. Emphasis is given to the altruistic goals of the Peace Corps and the book describes the education and training necessary to initiate his Peace Corps role. Some pages are devoted to a description of the history of the Peace Corps and the influence the Peace Corps may have on world peace.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service General Teaching and Social Service
Subject Area:	Social Studies
Grade Level:	2 - 4

Comments

The book is useful as information on education and training needed for jobs. Because of changes in the Peace Corps, the book is outmoded in some respects.

Author: Nixon, Lucille M.

Title: Young Ranchers at Oak Ranch

Source: Lane Magazine & Book Co.; Menlo Park, California,
1960, 64 pp., $2.95

Description

The book is about a young boy and girl who live on a ranch. A blacksmith comes to work on the ranch and the children have the opportunity to show him around. Various phases of ranch activity are shown and the book ends with pictures of a rodeo. The book provides a realistic picture of modern day cattle ranching.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Ranch Worker
Subject Area:	Social Studies
Grade Level:	4 - 7

Comments

The book shows little in the way of specific job orientation to ranching activities. However, it does give a picture of leisure time activity.

Author: Norling, Josephine and Norling, Ernest

Title: Pogo's Oil Well: A Story of Petroleum

Source: Holt, Rinehart & Winston, Inc.; New York, 1955,
57 pp., $2.92

Description

The book tells the story of a boy and his dog who become interested in an oil refinery while the boy's family is vacationing at the beach. Workmen explain to the boy the process of oil drilling and the boy and his dog are present when a crew strikes oil. The next day the boy returns and finds that the well where they had observed the oil strike had been renamed after the boy's dog, Pogo.

Supplementary Information

Occupational Clusters:	Construction Trades Mechanics, Industrial Trades
Occupation:	Oil Field Worker
Subject Areas:	Science Social Studies
Grade Level:	1 - 6

Comments

Although this story is a fantasy, some factual material is presented, chiefly about the duties of oil drill workers.

Author: Poole, Lynn and Poole, Gray

Title: Scientists Who Work Outdoors

Source: Dodd, Mead, & Co.; New York, 1963, 173 pp., $3.50

Description

Life histories and current activities of thirteen persons engaged in various disciplines are described. Each of the persons discussed in the text is a scientist engaged in some sort of outdoor activity. These outdoor scientists cover a wide range of topics from oceanography to geology to cultural anthropology.

Supplementary Information

Occupational Clusters:	Engineering, Physical Science, Mathematics, Architecture Humanities, Law, Social and Behavioral Sciences Medical and Biological Sciences
Occupations:	(extensive coverage of scientists from various disciplines: see Description)
Subject Areas:	Science Social Studies Mathematics
Grade Level:	7 - 9

Comments

Information on necessary education and training for these professions is presented, along with description of job duties. Coverage of the subject is thorough.

Author: Radlauer, Ruth S.

Title: Whose Tools are These

Source: Elk Grove Press; Encino, California, 1968, 55 pp., $3.99

Description

This book illustrates the tools of many trades and describes how they are used. Most attention is given to the tools of industrial trades, but some pages are also devoted to instruments such as dental tools, musical instruments, and art supplies.

Supplementary Information

Occupational Clusters:	Construction Trades Fine and Performing Arts Mechanics, Industrial Trades Medical and Biological Sciences
Subject Areas:	Social Studies Science
Grade Level:	K - 2

Comments

This is a refreshing new approach to job orientation. The major emphasis is on the activities of the careers discussed and the tools used in practicing each.

Author: Radlauer, E. and Radlauer, R. S.

Title: On the Sand

Source: Franklin Watts, Inc.; New York, 1972, 47 pp.,
$4.95

Description

All Terrain Vehicles (ATV's) like snowmobiles are described and pictured in a variety of activities. Beautiful color pictures show the vehicles in action and the text describes the thrills and chills that ATV operators experience.

Supplementary Information

Subject Area: Social Studies

Grade Level: 5 - 9

Comments

The focus here is on one type of leisure activity.

Author: Robinson, Barry and Dain, Martin J.

Title: On the Beat: Policemen at Work

Source: Harcourt Brace Jovanovich, Inc.; New York,
44 pp., $2.95

Description

The book shows a white and a black policeman, who work as a team, as they perform their duties in a large American city. The book emphasizes both the roles of policemen, and the men behind the badges. Attention is given to the responsibilities and the personal satisfactions which police work may afford.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Policeman
Subject Area:	Social Studies
Grade Level:	2 - 4

Comments

This is a fairly thorough coverage of the topic, emphasizing the varied duties of policemen and the character of the man. No ethnic or sex bias is shown.

Author: Rosenfield, Bernard

Title: Let's Go to the U. S. Mint

Source: G. P. Putnam's Sons; New York, 1960, 47 pp., $2.68

Description

This short book tells the story of a visit to the U. S. Mint by a young boy and a young girl. While at the Mint, the children are shown how money is produced. The roles of some persons involved in the minting of coins are shown.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service Technical
Occupations:	Guard Assembly Line Worker Technician
Subject Area:	Social Studies
Grade Level:	4 - 6

Comments

None

Author: Rowland, Florence Wightman

Title: Let's Go to a Hospital

Source: G. P. Putnam's Sons; New York, 1968, 47 pp., $2.68

Description

A young boy is diagnosed as having tonsillitis and goes to the hospital for a tonsillectomy. His medical examination, laboratory tests, and hospital accommodations are shown. The conclusion of the book portrays nurses aiding the boy in his recovery.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupations:	Doctor Nurse Laboratory Technician
Subject Area:	Science
Grade Level:	5 - 7

Comments

Some information about jobs and employment in the medical field is presented in the course of the story.

Author: Rusch, Richard B.

Title: Computers: Their History and How They Work

Source: Simon & Schuster, Inc.; New York, 1969, 126 pp., $4.50

Description

This book describes computers, their history, function, and the role they are coming to play in modern society. The last chapter informs the reader about careers in computer science. This discussion is fairly thorough and includes information on the training necessary to enter some of the computer fields and expected income.

Supplementary Information

Occupational Clusters:	Business - Clerical Technical
Occupations:	Computer Operator Computer Programmer
Subject Areas:	Science Mathematics
Grade Level:	7 - 9

Comments

This is a thorough and up-to-date presentation of the job activities of computer operators and programmers.

Author: Scarry, Richard

Title: Richard Scarry's What Do People Do All Day?

Source: Random House, Inc.; New York, 1968, 99 pp., $3.95

Description

This is a comprehensive book of careers for pre-school, kindergarten, and early elementary level children. People in the guise of rabbits, mice, and other animal friends are presented practicing careers ranging from poets to cotton pickers. The interdependent nature of a community is shown. Detailed illustrations also provide much information for both readers and nonreaders.

Supplementary Information

Occupational Clusters: (comprehensive listing)

Occupations: (extensive coverage)

Subject Areas: Mathematics
Language Arts
Social Studies
Science

Grade Level: K - 2

Comments

The book's value is in providing an introduction to the many options in the world of work. Little specific factual material is presented, but the portrayal of how each job is useful to the community is good.

Author: Schwartz, Alvin

Title: Night Workers

Source: E. P. Dutton & Co., Inc.; New York, 1966, 64 pp.,
$3.95

Description

This book explains jobs which require work after dark. It presents an hour by hour time line starting at 6 p.m. and ranging until 7 a.m. Individuals who work during those hours are shown. Interesting pictures show the night workers as they go about their night time chores. Some of the night workers pictured include telephone operators, policemen, bridge toll takers, and many others.

Supplementary Information

Occupational Clusters:	Business - Clerical Construction Trades Fine and Performing Arts General, Public Service, Community Service Technical
Occupations:	(extensive coverage)
Subject Area:	Social Studies
Grade Level:	2 - 6

Comments

The book is useful in reminding the child that some occupations have unconventional work schedules. Many careers are covered.

Author: Sendac, Maurice

Title: In the Night Kitchen

Source: Harper & Row, Publishers; New York, 1970, 35 pp.,
$4.95

Description

This is the story of a young boy who in his dream goes to a night kitchen where bakers are preparing some bread. The boy becomes involved in many adventures including getting trapped in the bakers' dough and taking an imaginary trip over the milky way to obtain milk for the bakers.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Baker
Subject Area:	Language Arts Social Studies
Grade Level:	K - 2

Comments

Although the book is fantasy, some information is provided, such as the fact that bakers often work at night.

Author: Seuss, Dr. and McKae, Roy

Title: My Book About Me: By Me, Myself

Source: Beginner Books; New York, 1969, 60 pp., $3.50

Description

This is an interesting book which asks children to fill in information about themselves. It asks questions about where the children live, where they go to school, some of their personal preferences, their best friends, and some more personal things such as if they get mad easily and what their hobbies are.

Supplementary Information

Subject Areas:	Social Studies Language Arts
Grade Level:	K - 3

Comments

The book is useful in getting children to probe their own interests and personalities, a necessary step in choosing a career. If children do not own the book, they would have to fill in information on separate pieces of paper.

Author: Shaftner, Dorothy

Title: Kim Fashions a Career

Source: G. P. Putnam's Sons; New York, 1968, 190 pp., $4.50

Description

A young girl's plans to become a fashion buyer for a large store are thwarted when her father becomes ill and she is forced to quit school and take a less glamourous job. At first she is very disappointed but after a while she make acquaintances and begins to like her job. Toward the end of the book she finds her job more fulfilling when she gets the opportunity to work with a fashion coordinator. As a result of her good experiences, the girl develops more self-appreciation.

Supplementary Information

Occupational Clusters:	Business - Clerical Business, Sales
Occupations:	Retail Buyer Retail Clerk
Subject Area:	Language Arts
Grade Level:	7 - 9

Comments

The book is relevant to knowledge of one's self, particularly in regard to job conditions. Although not much factual information is presented, the story line makes it useful for discussing career goals.

Author: Shay, Arthur

Title: What Happens When You Put Money in the Bank

Source: Reilly & Lee Books; Chicago, 1967, 30 pp., $4.50

Description

This book provides a basic introduction to the concept of banking. It discusses opening of accounts, use of pass-books, interest, and the functions of bank personnel. A tour of the bank is used to explain the duties of tellers, bank guards, and other bank employees.

Supplementary Information

Occupational Clusters:	Business - Clerical General, Community Service, Public Service
Occupations:	Bank Clerk/Teller Bank Guard
Subject Areas:	Social Studies Mathematics
Grade Level:	3 - 5

Comments

Information is presented about basic economic concepts and financial planning. No bias towards ethnic groups is shown. The book is appropriate for students' use without need of teacher assistance.

Author: Shay, Arthur

Title: What Happens When You Travel By Plane

Source: Reilly & Lee Books; Chicago, 1968, 27 pp., $4.50

Description

Shay's book provides an interesting introduction to air travel. It tells the story of two children who fly from O'Hare Field in Chicago to the Los Angles International Airport. The children view the ticket sales procedure, the preparation of food for the flight, the preparation of flight plan, and are shown the instruments the captain uses in operating the airplane. At the conclusion of the book the children are shown enjoying activities far away from the point of departure.

Supplementary Information

Occupational Clusters:	Business Administration Business - Clerical General, Community Service, Public Service
Occupations:	Airline Ticket Clerk Steward/Stewardess Pilot Chef, Cook
Subject Areas:	Social Studies Science Mathematics
Grade Level:	2 - 5

Comments

The major emphasis here is on a general picture of the airlines, with secondary information on job duties. It is also related to use of leisure time.

Author: Shay, Arthur

Title: What Happens in a Car Factory

Source: Reilly & Lee Books; Chicago, 1969, 28 pp., $4.50

Description

The book describes what happens in a car factory. It discusses various aspects of automobile production, starting with engineering and progressing through different phases of automobile construction. Photographs demonstrate various aspects of automobile construction. The book concludes with a description of testing, and finally, with delivery of an automobile to the family.

Supplementary Information

Occupational Clusters:	Engineering, Physical Science, Mathematics, Architecture Mechanics, Industrial Trades
Occupations:	Machine Tradesman Auto Mechanic Mechanical Engineer
Subject Area:	Science
Grade Level:	K - 3

Comments

Information about jobs and employment in the automobile industry is presented. No women workers are pictured at the factory.

Author: Shay, Arthur

Title: What Happens When You Go to the Hospital

Source: Reilly & Lee Books; Chicago, 1969, 28 pp., $4.50

Description

This book describes a young girl's visit to the hospital to get her tonsils removed. Photographs and descriptions of hospital administrative procedures, physical examinations, laboratory testing, preparation for the operation, and actual surgery are presented. A basic introduction to the roles of various hospital personnel is presented.

Supplementary Information

Occupational Clusters:	Medical and Biological Sciences Technical
Occupations:	Nurse Doctor X-Ray Technician Medical Laboratory Assistant
Subject Area:	Science
Grade Level:	K - 3

Comments

The photography in this book recommends it. Little specific factual information is presented. There is little evidence of sex or ethnic bias in the text.

Author: Shay, Arthur

Title: What Happens When You Build a House

Source: Reilly & Lee Books; Chicago, Ill., 1970, 26 pp.,
$4.50

Description

What Happens When You Build a House is an up-to-date book which describes the construction of a home. The progress of a home is followed from the time a building permit is issued until the family finally moves into the home. Although some steps in the construction are not shown, the book pictures men engaged in a wide variety of construction trades.

Supplementary Information

Occupational Cluster:	Construction Trades Mechanical and Industrial Trades
Occupations:	Variety of Construction Tradesmen Variety of Mechanical and Industrial Tradesmen
Subject Area:	Social Studies
Grade Level:	K - 3

Comments

The book is a thorough treatment of the duties of construction workers. It bears on all jobs in construction.

Author: Shuttlesworth, Dorothy

Title: ABC's of Buses

Source: Doubleday & Co., Inc.; New York, 1965, 33 pp.,
$3.95

Description

This is an alphabet book in which every other page has a letter of the alphabet and the letters are used to summarize some type of bus, bus part or some other topic related to bus use; e.g., F - fare, T - tires, Z - zoo bus.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Subject Area: Social Studies

Grade Level: K - 2

Comments

The topic here is narrow and little career information is presented. However, duties of bus personnel are portrayed.

Author: Simpson, Willma and Simpson, John

Title: About Pioneers: Yesterday, Today, and Tomorrow

Source: Melmont Publishers; Chicago, 1963, 64 pp., $3.00

Description

Pioneers are people who find creative new ways to perform tasks. The book mentions pioneers in the field of transportation, communication, shelter, foods, and clothing design. The concluding section of the book is entitled "We can all be pioneers" and encourages the reader to exploit his own creative potential.

Supplementary Information

Subject Areas:	Science Social Studies
Grade Level:	4 - 6

Comments

The book is relevant to an understanding of one's self and one's talents. The main thrust is to encourage the reader to realize and develop his own creativity.

Author: Slobodkin, Lewis

Title: Read About the Postman

Source: Franklin Watts, Inc.; New York, 1966, 67 pp., $3.75

Description

The book explains postal systems with emphasis on the history of postal communication. It begins with a description of the ancient Persian postal system and continues to the present. The book concludes with a discussion on how one becomes a postman.

Supplementary Information

Occupational Cluster: General, Community Service, Public Service

Occupation: Postman

Subject Area: Social Studies

Grade Level: K - 3

Comments

This is a well-organized and comprehensive description of the postman's job and postal systems.

Author: Splaver, Sarah

Title: Some Day I'll Be a Doctor

Source: Hawthorn Books, Inc.; New York, 1967, 95 pp., $3.75

Description

This book summarizes the history of the medical profession, describes the requirements and training necessary to enter the medical profession, and provides a brief explanation of medical practices. Information for additional reading and where interested students may wish to write is provided. In addition, a catalogue of American medical colleges is presented. A portion of the text is devoted to medical opportunities which may be available for women. In addition, information is provided on opportunities for ethnic minorities in the medical profession.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupation:	Doctor
Subject Area:	Science
Grade Level:	5 - 8

Comments

This book focuses on the job duties of a medical doctor and the education and training needed for the job. It is useful for students and teachers as a reference book.

Author: Stevens, Leonard and Kaufmann, John

Title: Trucks That Haul By Night

Source: Thomas Y. Crowell Co.; New York, 1966, 41 pp., $3.50

Description

This is a beautifully illustrated book which paints a realistic portrait of the life of a long distance truck driver. It provides enough detail to get a good feeling for the life of a long distance truck driver and covers the topic thoroughly for its grade level.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Truck Driver
Subject Area:	Social Studies
Grade Level:	1 - 5

Comments

None

Author: Telfer, Dorothy

Title: Exploring the World of Oceanography

Source: Childrens Press; Chicago, 1968, 87 pp., $6.00

Description

This is an excellent description of the study of the oceans. The book is documented with photographs. It is primarily a description of the ocean, but some attention is given to the life of oceanographers. In addition, colleges offering courses in oceanography are listed.

Supplementary Information

Occupational Cluster:	Medical and Biological Sciences
Occupation:	Oceanographer
Subject Area:	Science
Grade Level:	7 - 9

Comments

This is a thorough treatment of the activities of the oceanographer and of the education and training needed for the career.

Author: Vasiliu, Mircea

Title: What's Happening

Source: John Day Co., Inc.; New York, 1970, 44 pp.,
$4.50

Description

All that happens in a small town is presented with color illustrations and catchy captions. People engaged in such diverse occupations as music teacher and construction worker are shown. The book presents a wide variety of occupations one might practice in a small town.

Supplementary Information

Occupational Clusters:	(comprehensive listing)
Occupations:	(extensive coverage)
Subject Areas:	Mathematics Language Arts Social Studies Science
Grade Level:	K - 2

Comments

This book is useful in illustrating the wide variety of options one has in choosing a profession. Since so many topics are covered, little factual information on any one occupation is presented.

Author: Weber, Alfons

Title: Elizabeth Gets Well

Source: Thomas Y. Crowell Co.; New York, 1969, 30 pp.,
$4.50

Description

A young girl becomes afflicted with appendicitis, and enters a hospital for an appendectomy. Detailed colored pictures of many hospital rooms portray the work of the nurses and doctors.

Supplementary Information

Occupational Cluster: Medical and Biological Sciences

Occupations: Doctor
Nurse

Subject Area: Science

Grade Level: K - 3

Comments

The author notes that he wrote this book to reduce children's fear of going into the hospital. Since the book is a translation from the Swedish, some cultural differences are evident, such as boys and girls being assigned to the same hospital rooms. Pictures portray complex hospital equipment. The information presented is relevant to knowledge of jobs in the medical field.

Author: Weimer, Sandra

Title: Small Hands, Big Hands

Source: Pantheon Books, Inc.; New York, 1970, 55 pp.,
$3.95

Description

This is a set of sensitive stories about the lives of seven itinerant Mexican-American farm workers. The book pictures the exhausting physical work and the inadequate wages for Mexican-American migrant workers. The photographs in the book are excellent and tell a story in their own right.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Agricultural Worker
Subject Area:	Social Studies
Grade Level:	5 - 9

Comments

Perhaps especially useful for Mexican-American children, the book is relevant to an important social issue.

Author: Wells, Robert

Title: What Do Civil Engineers Do

Source: Dodd, Mead, & Co.; New York, 1960, 64 pp., $3.95

Description

This book provides a short description of the duties of a civil engineer. Most attention is given to design and construction of bridges and dams. Some of the skills required of the engineer and some of the major problems he faces in his work are discussed.

Supplementary Information

Occupational Cluster: Engineering, Physical Science, Mathematics, Architecture

Occupation: Civil Engineer

Subject Area: Science

Comments

None

Author: Whitney, David C.

Title: Let's Find Out About Milk

Source: Franklin Watts, Inc.; New York, 1967, 47 pp.,
$3.75

Description

The book describes how milk is processed and the stages it goes through before it reaches the consumer. Some of the topics covered in the book include: the value of drinking milk; how milk gets from the cow to the dairy and the consumer; and pasteurization and homogenization of milk.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupations:	Farm Worker Dairy Worker
Subject Areas:	Social Studies Science
Grade Level:	K - 3

Comments

None

Author: Young, Miriam

Title: If I Drove a Truck

Source: Lothrop, Lee, & Shepard Co.; New York, 1967,
30 pp., $3.95

Description

The book describes various occupations which use trucks. These occupations include milkman, delivery man, bus driver, ice cream salesman, telephone repairman, garbage man, farmer, etc. The format of the book is based on a young boy's fantasies of being various types of truck drivers.

Supplementary Information

Occupational Cluster:	General, Community Service, Public Service
Occupation:	Truck Driver
Subject Area:	Social Studies
Grade Level:	K - 1

Comments

The orientation of this book is more fantasy than fact. However, it does portray the options open to someone considering truck driving as a career. As such, it may allow the child to reflect on his own interests and personality and how they influence his choice of which type of truck to drive.

Author: Zaffo, George

Title: The Giant Nursery Book of Things that Go

Source: Doubleday & Co., Inc.; New York, 1959, 189 pp., $5.95

Description

This is a large illustrated book showing a variety of vehicles of transportation. Some of the vehicles shown are classified under the headings of fire engines, trains, boats, trucks, and airplanes. The book is primarily a picture book, the only text being small captions for the pictures.

Supplementary Information

Occupational Clusters:	General, Community Service, Public Service
Subject Area:	Social Studies
Grade Level:	K - 4

Comments

Although the book shows vehicles, it gives little information on the roles and careers of the drivers. Little factual information is presented.

Author: Zaffo, George

Title: Airplanes and Trucks and Trains, Fire Engines, Boats and Ships, and Building and Wrecking Machines

Source: Grosset & Dunlap, Inc.; New York, 1968, $4.95

Description

This book discusses the function and structure of all the vehicles named in the title. Descriptions of all occupations involved in the operation and repair of these machines are presented.

Supplementary Information

Occupational Clusters:	Construction Trades General, Community Service, Public Service Mechanics, Industrial Trades
Occupations:	(extensive coverage)
Subject Areas:	Social Studies Science
Grade Level:	K - 3

Comments

Knowledge of the activities of these occupations is presented in a thorough manner.

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PART IV

SUPPLEMENTARY REFERENCES

PART IV

SUPPLEMENTARY REFERENCES

This is the fourth and final section of this review. As indicated earlier, the goal of this report was to provide a critical summary of basic references in career education without replicating the work of others which is readily available elsewhere. The commitment, then, was to supplement rather than supplant other efforts.

This part of the report deals with three different types of ancillary information. First, several other recent reviews of literature and material are identified, summarized, compared and contrasted. Next, a number of descriptions of sample commercial materials are offered. Following that, major journal, newsletter, periodical sources, and other key sources of information of which career educators should be aware are itemized

OTHER BIBLIOGRAPHIES

There are many bibliographies, of various types, to be had on the subject of career education. Many of these are available through ERIC; but there are at least six of which teachers, researchers, and materials developers should be particularly aware.

All of these, except one, have been published within the past year. For the most part, each is different and serves a different purpose. They, plus the present report, serve to reinforce each other, however; and, when taken together, they constitute a major reference source.

When considered jointly, the collective set reviews the following rather well:

1) the formally published literature;
2) the so-called "fugitive" material, including federal project reports, such as is typically covered in ERIC;
3) commercially available curricular materials;
4) experimental, project developed materials; and
5) children's trade books and school and public library resources.

The reviews comprising this set are the reviews by Palo Alto Educational Systems, Incorporated; by Sidney High and Linda Hall of the USOE Bureau of Adult, Vocational and Technical Education; by the ERIC Clearinghouses; by Willingham, Ferrin, and Begle of the College Entrance Examination Board; by Peterson, et al., of Eastern Illinois University; and by Bailey of Southern Illinois University.

The redundancy across these various reviews, plus the present review, is minimal. Consequently, they complement each other rather well. For example, there are twelve common references between the present report and the Peterson review, almost none in common with the PAES and the High reviews, and three of the references in the present report are in common with the Bailey report.

Literature reviews may be summarized according to three basic classification dimensions: 1) topical content (such as self-concept, occupational information, theories of career development, etc.); 2) type of materials (such as lesson plans, teacher guides, textbooks, professional papers and journal articles, etc.); and 3) source of information on which the review search was predicated (e.g., the published literature, the ERIC retrieval system, publishers catalog, etc.). These dimensions are for the most part independent and, thus, can appear to be overlapping.

The reviews by Bailey and Willingham are examples of reviews focused on a single topic: career guidance and development. The High and Bailey reviews, as contrasted to the Willingham and the present review, are based on the same source of information: ERIC searches. The Peterson review differed from the PAES review as to the type of material reviewed. The former was primarily concerned with commercially available materials, and the latter primarily with non-published developmental materials.

As might be expected, the ERIC system has played an especially prominent role in the generation of material for annotated bibliographies. The retrieval system is efficient, economical, and relatively convenient. With ERIC, the bibliographer's job is essentially one of selection and compilation. To the extent a researcher wishes to create a "comprehensive" bibliography, however, his results are apt to overlap with those of others. They may, in fact, be extremely redundant. The recent ERIC Career Education Bibliography produced by CCM Information Corporation and MacMillan Library Services will be a complete collection of all relevant units of the ERIC system, and thus, will tend to make any lesser review of ERIC unnecessary.

ANNOTATIONS

Author: Bailey, Larry J. (Ed.)

Title: Facilitating Career Development: An Annotated Bibliography

Source: Division of Vocational and Technical Education,
State of Illinois; Springfield, Illinois, 1970,
132 pp., available on request

This review is an ERIC-based annotated bibliography designed to publicize applications of theory and research on career development that relate to classroom realities. Literature searches were conducted in Research in Education (November 1966 to March 1970) and Education Index (July 1964 to March 1970). The materials are grouped by topics: computer-based guidance systems, models and techniques for career guidance; career development conferences; experimental, exemplary and curricular programs; gaming, simulation and career guidance kits; measuring vocational behavior; and approaches for providing occupational information and orientation. The exponential growth of literature on career development, noted by Bailey in the foreword, makes this type of review require frequent up-dating, but it does a good job of filling a current need and supplies a framework for future revision.

Author: Educational Resources Information Center (ERIC)
Clearinghouses

Title: Career Education, An ERIC Bibliography

Source: CCM Information Corporation; New York, N. Y.,
1972, $9.95

This recent bibliography has been compiled to include in one document all the citations in the ERIC system pertaining to the concept and implementation of career education and the relationship between education and work. The documents listed give complete bibliographic information as well as abstracts. Availability of documents, either in hard copy or microfiche, is also listed.

Author: High, Sidney, Jr. and Hall, Linda

Title: Bibliography on Career Education (Working Paper)

Source: Bureau of Adult, Vocational and Technical Education,
U.S. Office of Education; Washington, D.C., 1972,
64 pp.

This review is as comprehensive in its own right as that carried out by the Palo Alto Educational Systems Corporation. It is a reference listing of approximately 650 titles available through the ERIC System. As such, it is essentially a research access document for ERIC materials spanning the period 1965-72. It is especially useful in that it cites the ERIC entries for what is almost the entire range of career and vocational education projects funded by BAVTE, and other OE sources, in recent years. Citations are reported under four separate sections. Section I, Selected

References on Career Education, provides basic references on the underlying concept involved in career education. Section II, Journal Articles, covers periodical publications dealing with various facets of career education. Section III, Background References Related to Career Education, contains listings of pilot projects, curriculum guides, teaching materials, and instructional programs. Section IV, Continuing Sources of Information, lists seven periodicals which abstract research and instructional materials and provide other reference resources. The ERIC system ED numbers are included for easy identification and ordering.

Author: Palo Alto Educational Systems

Title: A First Step Toward Career Education: A Project to Identify, Compile, and Catalog

Source: Palo Alto Educational Systems; Scottsdale, Arizona, 1972, 251 pp. (ERIC ED 060 224; MF $.65, HC $9.87)

This effort was perhaps the most extensive materials search ever undertaken in career education. It was carried out for the Ohio State University Comprehensive Career Education Model (CCEM) program by the Palo Alto Educational Systems Corporation of Scottsdale, Arizona. It involved the effort of a total of 45 people for a three-month period. As such, it serves as a landmark in the field.

The purpose of the study was to "identify, collect, classify, and assess career education treatment units that have proved effective or can be readily field tested."

A treatment unit was defined as "any idea, program, system, procedure, device, or material that can contribute to the development, installation, evaluation, or dissemination of the career education concept."

The operational definitions of treatment units (i.e., their classification codes) were: 1) instructor guides or manuals, 2) curriculum guides, 3) program guides or operations manuals, 4) instructional units, 5) supplementary materials, 6) audio-visual aids, 7) student workbooks, 8) student achievement tests, 9) bibliographies, and 10) materials not otherwise classified.

"Programs proven in a public education/vocational training environment were to receive preferential treatment over materials available from other sources."

A large-scale mail survey was the procedure used for the identification of units for review. The survey was made of all major public schools active in career education, universitites, community colleges, the American Association of Publishers, Regional Educational Laboratories, ERIC, and various industrial programs.

Materials were provided by: approximately 330 school systems, 55 community colleges, 45 trade associations, 30 commercial suppliers/publishers, 15 professional organizations, and 15 government agencies.

A total of 475 treatment units were collected and assessed.

Many of the materials received fell into eight "irrelevant" categories: 1) price lists, 2) supplier catalogs, 3) professional bibliographies, 4) project brochures, 5) proposals, 6) correspondence, 7) miscellaneous materials, and 8) instructional materials not relevant to the CCEM K-12 curriculum matrix.

The report concluded, "A significant portion of materials received at the assessment center did not represent treatment units that could be immediately useful in a classroom environment."

It is known, however, that only approximately 100 units were selected by the prime contractor for possible inclusion in the CCEM project pending necessary adjustments and/or revisions.

In brief, the purpose of the PAES Survey was to identify school developed and/or tested materials for possible use in a large-scale experimental career education program. Thus, the search deliberately sought out materials which were: a) highly innovative, b) on the forefront of career education, and c) possible bases of future development in the experimental program.

However, the implementation of career education in typical classroom settings across the country, where little or no special funding is available, requires materials that are widely available, inexpensive, immediately accessible, and compatible with the organizational structure and administrative patterns of public education in general. Thus the results of the PAES Survey are apt to be of keen interest only to groups charged with the development of highly sophisticated instructional units. It would be of relatively little interest to "non-project-affiliated" classroom teachers interested in independently implementing career education in their own classrooms.

Author: Peterson, Marla, et al.

Title: Enrichment of Teacher and Counselor Competencies in Career Education K-6: An Annotated Bibliography

Source: The Center for Education Studies, School of Education, Eastern Illinois University; Charleston, Illinois, 1972, 197 pp. (Disseminated by the Illinois Career Education Curriculum Management Center, Board of Vocational Education and Rehabilitation, Division of Vocation and Technical Education, State of Illinois)

This review constitutes a major contribution to practical career education in the classroom not readily available in any other source.

This review was prepared primarily for in-house staff use in the development of a series of elementary school career education curriculum guides and classroom learning units.

While it contains a number of references to selected items in the professional literature and to non-commercial materials available from schools and other federally funded projects, its unique contribution can be found in its comprehensive review of an extremely large body of commercially available materials. From a classroom teacher's, or materials developer's, point of view this is by far the most significant aspect of the review.

Approximately 380 catalog items are reviewed in Part III of this report. The bulk of these, approximately 330, are audio-visual or multi-media materials such as films, film strips, audio-tapes, multi-media kits, and the like. These materials range in price from less than $2 to almost $900.

These materials are also cross-indexed as to general grade level (i.e., primary or intermediate), by occupational cluster, and by type of media involved.

In summary, then, this report contains over 50 annotated literature references; 66 pages of descriptions of non-commercial developmental materials; a list of approximately 380 commercial catalog items, compiled from a total of 66 commercial publishers; and 30 references to other bibliographies, measurement and/or evaluation instruments.

Author: Willingham, Warren W.; Ferrin, Richard I.; and Begle, Elsie P.

Title: Career Guidance in Secondary Education

Source: College Entrance Examination Board; New York, 1972, 66 pp. (Copies: Publications Order Office, College Entrance Examination Board, Box 592, Princeton, N. J. 08540, $2.00)

This document is an excellent review and analysis of the major trends and theoretical foundations of contemporary career guidance. Approximately 2/3 of the report is directed toward a critical analysis. The report does, however, contain fairly extensive annotations of approximately 100 major theoretical publications in the field of career guidance and planning. This review, especially when taken in concert with the ERIC-based bibliography by Larry J. Bailey cited earlier, constitutes a major resource for those concerned with career guidance and development.

SELECTED PROGRAMS, MATERIALS, TEXTS, AND HANDBOOKS

The materials reviewed in this section represent a sample of commercially available instructional and/or reference materials which would be useful to teachers and students in a career education program. This section is intended to provide an indication of the kinds of materials which are available commercially, should a school or school district be interested in purchasing career education materials. This should not be viewed as a comprehensive review of available, commercial, career education-related, instructional materials. Bowker's 1972 Elementary and High School Textbooks in Print lists over 17,000 titles, excluding all audio-visual aids, games, kits, and other forms of instructional material. Five per cent of these 17,000, or 850, are titles listed for Vocational and Technical Education. Another very large, but as yet unspecified, percentage deals with topics such as those reflected in the following citations which deal with career guidance, decision making, knowledge of self, applied economics, and the like. As indicated in the preceding section, many special topical reviews have previously been conducted, have been filed with, and are available from ERIC.

Considerable variety exists among the materials, both with regard to the scope and topics of the materials and to their form. For this reason, the materials have been clustered into groups of similar items and will be dealt with in those groups. Each group is described below.

Curriculum Series. This includes comprehensive curricular programs, either dealing directly with career education or concerning subject areas which are relevant for career education, such as applied economics. Typically these curricula are extensive programs intended to span a number of grade levels, although a few have a specific grade level or subject focus.

Career Exploration and Decision-Making Programs. Programs which focus on information acquisition, planning, and decision-making based on knowledge of self and of opportunities available are included in this cluster. These materials are not so extensive in scope as the curriculum series; they typically represent one-to five-month instructional units rather than complete programs.

Film Series and Programs. These materials are all based upon audio-visual, rather than written, resources. While written, individual instructional units or guides may be included in the packages, the primary means of instruction is through audio-visual resources.

Teacher Resource Handbooks. These are resource books for instructors involved in career education programs. Typically, they provide indices of resources and procedures for integrating career education into classroom activities.

Specific materials selected from each of these categories are listed and brief descriptive comments are provided for each item.

ANNOTATIONS

Curriculum Series

Taba Social Studies Curriculum Addison-Wesley Publishing Co., Inc. Reading, Massachusetts	This program is designed for students in grades 1-8. It consists of eight topical units, each one intended for a specific grade level. The units deal with such topics as Communities Around Us, Societies in Transition, and Social Change.
Elementary School Economics Project Allied Education Council Galien, Michigan	This is a two-part program in basic economics which is intended for use in grades four and five. It is related to the series on Economic Man produced by the Benefic Press, cited below.
Greater Cleveland Social Science Program Allyn & Bacon, Inc. Boston, Massachusetts	This is a sequential program for grades K-8 in which each unit builds on the concepts gained in the previous year's unit. Concepts developed are drawn from economics, political science, psychology, sociology, and other social science disciplines. Units deal with such topics as Learning About the World, Communities at Home and Abroad, and the Human Adventure.
Developing Understanding of Self and Others (DUSO) American Guidance Series, Inc. Circle Pines, Minnesota	This program is intended for students in grades K-6. It consists of a series of kits, each containing materials for a one-year program: teacher manual, puppets and role playing activities, and recorded and illustrated stories.

Elementary School Economics Project Benefic Press Westchester, Illinois	This program, for grades 6-8, deals with the topic, Economic Man. It may be used as a 24-week course in economics or as a series of smaller units. The program is a follow-on to the Elementary Economics program published by the Allied Education Council cited previously.
Concepts and Values Harcourt Brace Jovanovich, Inc. New York, New York	Materials, including student texts and teacher guides, have been developed for grades 1-4. Materials for kindergarten and grades five and beyond are currently under development. The materials deal with concepts drawn from economics, sociology, political science, and history.
The Child's World of Choices Joint Council on Economic Education Washington, D. C.	This program, developed under the aegis of the Developmental Economics Education Program in Des Moines, Iowa, is intended to assist second grade teachers to incorporate basic economic concepts in their instruction. It includes a teacher's guide which presents suggested learning activities ($3.10) and an activity book for student use containing illustrations of various economic concepts ($1.50).

Focus on Self-Development Science Research Associates Chicago, Illinois	This program is divided into three components, one focusing on Awareness, one on Responding, and one on Involvement. Together, these strands cover grades K-6. The materials comprising the program include teacher's guides, filmstrips, records, student activity books, and photoboards.
Our Working World Science Research Associates Chicago, Illinois	This program, developed by Lawrence Senesh, is for use in grades 1-6. Materials for levels 1-3 have been developed and cover Families, Neighbors, and Cities at Work. Levels 4-6 are to be published in March, 1973, and will cover Regions in the U.S. and The American Way of Life.
Life on Paradise Island Scott Foresman & Company Glenview, Illinois	This book, written by W. J. Wilson and R. F. Warmke, is intended to introduce basic economic concepts to students in grades 5-9. In addition to text, the book contains clever cartoon illustrations. ($2.10).

Career Exploration and Decision Making Programs

Career Information Kit Science Research Associates Chicago, Illinois	This kit contains a comprehensive library of materials presenting information on careers. The materials are appropriate for use with students in grades 9-14.
Deciding College Entrance Examination Board New York, New York	This is a course of study on decision-making, including units on values analysis, information acquisition, and decision strategies, for use in grades 7-9. The package contains a student workbook ($2.50) and a leader's guide ($2.00). A similar course suitable for high school students and adults is scheduled for 1973 availability.
Motivation for Career Success Education Achievement Corporation Waco, Texas	This is a 30-lesson program presenting concepts critical to career success. Aimed at junior and senior high school students, it utilizes cassettes, printed guides to narration, and a plan of action manual for student use in practicing skills of valuing, organizing, and goal-setting.
You: Today and Tomorrow Educational Testing Service Princeton, New Jersey	This is a self-contained program on decision-making which is designed to cover 30 group guidance sessions. Included in the program are a 100-page student booklet ($2.00) and a teacher's guide ($2.00).

Hello, World! A Career Exploration Program Field Educational Publications, Inc. San Francisco, California	This program, developed by Ruth L. Holloway and Elaine Stowe, consists of texts providing exploratory experience in high-priority clusters of occupations. Through the program students can relate their school curricula to job planning, assess their interests, abilities, and attitudes, and develop an awareness of economics.
Exploring Careers Games Central c/o Abt Associates Cambridge, Massachusetts	This package contains "recipes" for simulation experiences through which students can explore possible careers and acquire basic information about those careers. Each of the recipe booklets costs $2.00.
Career Exploration and Decision-Making Houghton Mifflin Co. Boston, Massachusetts	This package is a "desk-top" career kit, consisting of file boxes containing over 1200 Career Briefs indexed on file cards. The total price ($114.50) includes a one-year subscription to file up-dating services. The program is also available in smaller components. A Career Exploratory Kit, designed for counselors, contains information on 450 jobs. Specialized kits on particular occupational areas are also available.
Job Experience Kits Science Research Associates Chicago, Illinois	These kits, for students in grades 8-10, provide simulations of job experiences and the realities of work.

Learning to Make Decisions The University Leeds, England	This program, currently under development, is comprised of teaching-learnin units designed to provide students with strategies for and opportunites to practice decision-making. It is intended for students in grades 7-12.
Life Career Game Western Publishing Co., Inc. Racine, Wisconsin	This game consists of simulation experiences in a Parker Bros.-type game format. The experiences require the players to make plans and decisions and to examine the consequences of those decisions. The cost ranges from $8.00 to $35.00 per game.
Career Orientation Program Ohio State Department of Education Columbus, Ohio	The elements of this program intended for use in grades 7-8 focus on the Individual, the Occupations, and the Disciplines. In addition to providing conceptual models for career orientation programs, the program contains a teacher handbook of guidelines for implementing such programs.
PLAN Long Range Goal Formulation Program Westinghouse Learning Corporation New York, New York	The goal formulation component of PLAN, for students in grades 9-12, focuses on the relation of characteristics about one's self to characteristics of different occupations. Information about jobs in each of twelve occupational clusters is presented as well as skills in planning and decision-making.

Career Awareness Program:
Starring Popeye the Sailor

King Features Education Division
New York, New York

This program for fourth grade students consists of a series of career oriented booklets in comic strip format. The pamphlet on Health and Environmental occupations is now available; booklets on thirteen other occupational clusters are under development. Materials are developed to provide multi-ethnic appeal as well as career information.

Film Series and Programs

Workers We Know: Programmed Work Awareness Kit, Level B Chronicle Guidance Publications Moravia, New York	This kit, intended for use with students in grades K-6, provides a comprehensive program including a teacher's manual, a simulated TV screen, puppets, worker songs and records, and a cash register and money.
People Have Careers: A Primary Teacher Integrates Career Development in Basic Areas of the Curriculum Communication Services Department Northern Illinois University De Kalb, Illinois	This 16 mm. color sound film running 11 minutes is available on a rental basis. It can be used to train teachers of grades K-6 to utilize career education in their classrooms.
World of Work Edu-Craft, Inc. Detroit, Michigan	This filmstrip series for students in grades K-6, is comprised of two components. Filmstrips for the K-3 level focus on providing information about highly visible occupations. Filmstrips for the 4-6 level explore occupational clusters and related skills, attitudes, and aptitudes.
Making It In the World of Work Film Fair Communications Studio City, California	This 16 mm. color, 25-minute film presents self-analysis by nine recent graduates focusing on why they chose their occupations, what adjustments they had to make, and so forth. The film is appropriate for people from grade seven through adulthood.

Career Education: 1) School Report, 2) Approach to Orientation, 3) Career Exploration Film Craft Laboratories Detroit, Michigan	These materials, designed for use by teachers in elementary school, junior high school, and senior high school, respectively, are intended to assist teachers to initiate and operate effective career education programs.
Interpretations: The Me Nobody Knows New York Times Company, Book Division New York, New York	This package is intended for use by students in grades 6-9. It includes a filmstrip, made by a sixth grade class, which focuses on learning by doing. In addition, a record is provided which tells teachers how they can assist students to produce their own filmstrips.
Keys-Career Exploration Program Science Research Associates Chicago, Illinois	This program, for use by people from grade six through adulthood, consists of filmstrips with tape cassettes which present information on the world of work. The Kuder interest classification provides the basis for presenting the information.
Widening Occupational Roles Kit (WORK) Science Research Associates Chicago, Illinois	The focus of this program, for grades 6-9 is on assisting students to relate their general interests, abilities, and educational plans to career opportunities. An occupational scanner, the WORKSCOPE, is provided to help students acquire information about the characteristics of various careers.

Career Education Society for Visual Education Chicago, Illinois	This is a filmstrip series designed for grades 7-12. The filmstrips present information on job opportunities and job skills and assist students to develop skills in making vocational decisions and occupational plans.
World of Work Society for Visual Education Chicago, Illinois	This program, for grades K-6, is a filmstrip series which focuses on the development of positive attitudes toward the world of work. The filmstrips present developmental studies of people and their jobs and explore the implications of career challenges for the people.

Teacher Resource Handbooks

Career Education Resource Bottoms, J. E., et al. General Learning Corporation Morristown, New Jersey	This guide includes samples of curricular activities selected from hundreds of local school district career education programs. It is for use by teachers of grades K-9. ($4.25)
Career Education In-Service Training Guide Louise J. Keller General Learning Corporation Morristown, New Jersey	This guide is intended for use by local administrators in planning and implementing in-service training programs. It provides background perspectives, overviews of the national scene in career education, and discussions of developmental stages of implementing career education in local settings. ($2.00)
Economic Education for Washington Schools Joint Council on Economic Education Washington, D. C.	This manual, developed by the Developmental Economics Education Program in Seattle, Washington, is intended to assist teachers in grades K-6 to include economics in their instruction. In addition to providing a common format for various basic economic concepts, the report includes learning activities and bibliographies for each grade level. ($3.00)

World of Work: A Handbook for Elementary School Teachers and Counselors Leslie Press Dallas, Texas	This handbook, for teachers of grades K-6, contains a syllabus for a program in which students explore the world of work. In addition to the syllabus, the handbook contains suggested learning activities for various aspects of the program. ($4.95)
Yellow Pages of Learning Resources Wurman, Richard (Ed.) M.I.T. Press Cambridge, Massachusetts	This guide, for teachers in grades K-9, is modeled on the telephone directory yellow pages format. Its purpose is to show how the city can be used as a learning resource. It contains numerous innovative ideas for learning activities. ($1.95)
Introducing Career Education to Teachers: A Handbook for Consultants, Workshop Leaders, and Teacher Educators Dunn, Charleta and Payne, Bill R. Northern Illinois University De Kalb, Illinois	This handbook, developed as part of the Project ABLE Model Program, is a looseleaf notebook of five sections, each focusing on a specific aspect of a career education program. The sections are Introduction, Establishing a Relationship, Key Concepts, Conducting a Workshop, and Careers and Strategies. ($5.00)
K-12 Guide for Integrating Career Development Into Local Curriculum Drier, Harry N. Jr., et al. Wadsworth Publishing Co., Inc. Belmont, California	This guide for elementary and secondary school teachers, developed by the state of Wisconsin, contains several models for career education programs. In addition, objectives and extensive lists of resources are provided.

JOURNALS, PERIODICALS, NEWSLETTERS, AND OTHER SOURCES OF INFORMATION

It is becoming common knowledge that with the increasing volume of research, the amount of information we have doubles every 10 years. As a result, the knowledge we possess, especially technical knowledge, becomes outmoded quickly. It is no longer easy to know we know something, because what we thought was true may have been superseded. The consequence of this for information-gathering is that journals are becoming more reliable sources than books. The card catalog is less and less the heart of a library; that function is being taken over by guides to periodicals.

This process is as true for career education as for other areas, especially since the federal government put its weight towards implementing a comprehensive program in schools. Educators seeking information on theoretical formulations and research findings, on new teaching techniques, and on current trends on job openings will find regular perusal of journals useful in keeping up to date. The following section surveys important journals, periodicals, newsletters and other sources of information for the field.

In general, journals are put out by professional organizations. They stress research and are often scholarly in style. Periodicals are nontechnical in subject and style. They appeal to a general rather than a specialized audience. Newsletters sum up news and recent information in a format that gives its readers the gist of an item at a glance. For each publication, publishing and subscription information are provided. A brief report points up the major emphases of the publication and suggests a likely audience for it.

ANNOTATIONS

Journals

American Vocational Journal

American Vocational Association, Inc.
1510 H. Street, N.W.
Washington, D. C. 20005

(Monthly September through May
Free to members of AVA
$6.00 per year to non-members)

This journal presents a variety of theoretical and practical articles relevant to administrators, teachers, and guidance counselors. Articles deal with vocational guidance and also business, home economics, industrial arts, agriculture, and trade. There is considerable emphasis on research. Other features cover new equipment and aids to teaching, book reviews, a report on activities in Washington, and news of the organization.

Journal of Vocational Behavior

Academic Press, Inc.
111 Fifth Avenue
New York, New York 10003

(Published quarterly
Individual subscription
$10.00 per year)

Theory and research studies make up the contents of this journal, which is of primary interest to other researchers in the field. Concerns of the articles include vocational testing, models of vocational choice, and other contributions from the field of social psychology. Much of the research deals with characteristics of various groups in regard to work.

Monthly Labor Review

Bureau of Labor Statistics
Washington, D. C. 20212

(Published monthly
$9.00 per year)

This publication of the Department of Labor features current news and research of interest to labor experts. The writing style is technical, and most reports analyze statistical evidence of employment trends and

Monthly Labor Review
(continued)

practices. A regular department of the journal is current labor statistics, tables on employment and unemployment, earnings, prices, and productivity indexes. This information is the basis for high-level government decisions on labor and the economy. Other regular departments report on union conventions, significant decisions in labor cases, developments in industrial relations, and foreign labor trends. Research summaries and book reviews are also included.

Man/Society/Technology: A Journal of Industrial Arts Education

The American Industrial Arts Association
1201 Sixteenth Street, N.W.
Washington, D. C. 20036

(Published eight times during the school year
Free to members of the AIAA
Single copies $1.50; library subscriptions $9.00 per year)

The masthead reads, "M/S/T welcomes contributions from its readers on all phases on industrial arts." But just as the concept of career education has come to include more than information on jobs, this magazine has also taken a broad focus on its subject. It provides articles on career education and guidance, particularly in relation to the industrial arts student. The journal is of primary interest to teachers and guidance counselors.

The Personnel and Guidance Journal

American Personnel and Guidance
  Association
1607 New Hampshire Avenue, N.W.
Washington, D. C. 20009

(Published monthly except July
  and August
Free to members of the APGA
$20 per year to non-members)

This publication, the official journal of the APGA, declares that it "is directed to the mutual interests of counselors and personnel workers at all educational levels from kindergarten to higher education, in community agencies, and in government, business, and industry." The emphasis here is more on counseling for purposes of therapy and growth than on vocational guidance. Authors apply theoretical insights to the counseling process. The style is non-technical. The articles are of interest to the guidance counselor who takes a wide view of his function. Book reviews appear in each issue.

Vocational Guidance Quarterly

National Vocational Guidance
  Association
American Personnel and Guidance
  Association
1607 New Hampshire Avenue, N. W.
Washington, D. C. 20009

(Published quarterly
Free to NVGA members
$8.00 per year to non-members)

The masthead reads, "The VGQ is a professional journal concerned with the role of work in the life of man. The journal seeks manuscripts illuminating theory and practice in the field of vocational guidance. Applications of theory and implications of research are sought, as well as descriptions of programs and procedures. In short, manuscripts with meaning for practitioners are sought." Most of the articles are research studies which other researchers can build on. Guidance counselors can also find a few practical articles for their use here.

Periodicals

Career World

Curriculum Innovations, Inc.
501 Lake Forest Avenue
Highwood, Illinois 60040

(Published monthly during school year
$2.95 per student for school year; $1.75 for one semester)

Aimed directly at students (both high school and junior high), this short magazine (24 pp. an issue) provides factual, down-to-earth information on specific careers. Each issue focuses on two groups of careers (e.g., building trades, home economics, communications and media) and also takes shorter looks at three or four other occupations. The emphasis throughout is on what each career involves and what education and training are needed for it. So far, the magazine has not covered concomitants of work like leisure time and life style. Readers do become aware of the many options available within even a single occupation. Each issue also features brief looks at one or two successful practitioners of a career An introductory editorial often deals with some facet of the knowledge of self a student needs in order to make career decisions. Brief sections summarize news notes about career trends and suggest part-time jobs students might take up on their own.

Careers Today

CRM Associates
1330 Camino del Mar
Del Mar, California 92014

(Published monthly
$10 per year)

The publishers of Psychology Today use the same high gloss and innovative format in this magazine, which in large part is directed to college graduates or those about to graduate. Nevertheless, the magazine is also of interest to guidance counselors, teachers, and older students because of the information it provides on various types of careers. By and large, the careers discussed pre-suppose a high level of education. In addition to career materials, the magazine also emphasizes topics like the social responsibilities of business, the unusual worker who has chosen his own road to vocational success, and various studies which have wider applications than simple vocational guidance. Because of this approach, Careers Today offers a broader view of career education than many other publications. It may be a useful curriculum-planning resource and is good for browsing.

Instructor

Instructor Publications, Inc.
Subsidiary of Harcourt Brace
Jovanovich, Inc.
Instructor Park,
Dansville, New York 14437

(Published monthly; combined
June/July and August/September
issue
$8.00 per year)

This is a general education magazine for the grade school teacher which occasionally includes articles on career education. It features several articles on educational philosophy and issues as well as a lot of how-to-do-it material.

Manpower

U. S. Government Printing
Office
Washington, D. C. 20402

($5.50 per year)

Similar to *Life* in format, this magazine is aimed directly at students. It has a wide variety of articles on all types of careers. A typical article is "A Piece of the Action," which describes Spanish-American needs for a Manpower program. It has a range of general articles on topics like safety, building a better future, and the value of work. Published by the Department of Labor, Manpower Administration.

Occupational Outlook Quarterly

Bureau of Labor Statistics
Washington, D. C. 20212

(Published quarterly
$1.50 per year)

Practical articles on employment, particularly current trends, are spotlighted in this publication of the Department of Labor. The writing style is journalistic, and the contents are useful for both guidance counselors and job seekers. The articles report on career education in the schools and provide helpful information on specific careers and ways to get a job. A regular feature is summaries of special labor force reports and counseling aids available from the Government Printing Office at low cost or free. The *OOQ* is tied in to the *Occupational Handbook*, which is discussed in a later section.

The Urban Review

Agathon Publication Services, Inc.
150 Fifth Avenue
New York, New York 10011

(Published September, November,
January, March, May, and June
$12 per year)

Published by the Center for Urban Education, this magazine occasionally features articles on career education. The June, 1972 issue had a special section on the topic. The Urban Review's slant is toward general articles, rather than theoretical or how-to-do-it ones, on issues related to urban education.

Vocations for Social Change

Canyon, California 94516

(Published monthly
$15 per year to libraries)

This 50-page mimeographed newsletter is dedicated to "encouraging formation of new jobs which implement values more humane than our present structure reinforces." Issued by a non-profit organization, it lists some 150 employers from the Alabama Committee for Freedom and Peace to the Washington Free Press. Employment opportunities range from architects and writers to librarians and political organizers. For each position, full information is given, including salary or meals and housing. The value of this magazine is to point up an alternative to the conventional career pattern. It is useful in showing the diversity of occupational choice, life style, and social values available to students. Teachers might incorporate some of this material in their curriculum.

Newsletters

Career Education News

McGraw-Hill Institutional
Publications
230 West Monroe Street
Chicago, Illinois 60606

(Published twice a month from
September to June and monthly
in July and August
$30 a year)

Short and to the point, this newsletter presents brief rundowns of activities dealing with various aspects of career education. Its contents include summaries of meetings and conventions, descriptions of career and vocational programs in schools, reports of occupational trends, and tips for teachers and guidance counselors. A frequent feature is a bibliography of new documents in the field.

Inform

National Career Information Center
American Personnel and Guidance
Association
1607 New Hampshire Avenue, N.W.
Washington, D. C. 20009

(Published monthly except June
and July
$15 per year to members of the
APGA
$25 per year to non-members)

This newsletter is in large part a source of new information about career education which would be useful to teachers and guidance counselors. It disseminates information on books, audio-visual aids, and other instructional and guidance materials. The newsletter also features brief (one-page) reports on topics relevant to the field. The NCIC, which publishes the letter, has identified a variety of career clusters which represent thousands of occupational opportunities. Each issue of Inform lists, by cluster, the sources of current career materials, most of which are available free to students and guidance counselors.

NVGA Newsletter

National Vocational Guidance
Association
American Personnel and Guidance
Association
1607 New Hampshire Avenue, N.W.
Washington, D. C. 20009

(Published quarterly, September,
December, March, and June
Free to members of the NVGA
Non-members may subscribe by
special arrangement with Donald
K. Tucker, Northeastern University, Boston, Massachusetts
02115. Write for particulars.)

This is an in-house organization which disseminates information about the NVGA to its members. It contains reports of meetings, committees, and conventions. The activities of these groups are publicized. Little information about the classroom or curriculum is included.

Report on Education Research

Capitol Publications, Inc.
Suite 12-G, 2430 Pennsylvania
Avenue, N.W.
Washington, D. C. 20037

(Published every other Wednesday $40 per year)

The subtitle of this newsletter is "the independent bi-weekly news service devoted to basic and applied research in education." It summarizes major research projects, often ones conducted by national groups under government contracts. Since funding is a necessary prerequisite to research, the publication devotes as much space to news of that and of shifts in government personnel as it does to research. Summaries of relevant meetings are also reported. The style is terse and journalistic.

Abstracts of Instructional Materials in Vocational and Technical Education (AIM) and Abstracts of Research Materials in Vocational and Technical Education (ARM)

The Center for Vocational and
Technical Education
1960 Kenny Road
Columbus, Ohio 43210

(Each published quarterly
Subscriptions: For each, $11 per single year; $18 for two years; $27 for three years.)

These quarterly publications contain abstracts of and indexes to vocational and technical education documents, some of which have also appeared in *Research in Education.* They announce the availability of instructional materials acquired and processed by the ERIC Clearinghouse on Vocational and Technical Education. Abstracts are included under the following sections: agricultural, business and office, distributive, health occupations, home economics, industrial arts, trade and industrial, and general vocational and technical education. An author index, document number index, and subject index are provided. Most of the documents which have not been announced in *RIE* are available as a separate microfiche set from the ERIC Documents Reproduction Service.

Occupational Outlook Handbook

Superintendent of Documents
U. S. Government Printing Office
Washington, D. C. 20402

($6.25)

The new 1972-73 edition of this valuable reference book lists 700 major occupations in the 40 major industries in the United States. Approximately 70 per cent of all people seeking an occupation will find it in one of these 700 job listings. Each occupation is described in a clear style that can easily be understood by older students as well as teachers and counselors. Each entry includes these sections: nature of the work; places of employment; training, other qualifications, and advancement;

Occupational Outlook Handbook

(continued)

employment outlook, earnings and working conditions. The information is up-to-date and comprehensive.

A Dictionary of Occupational Titles

U. S. Government Printing Office
Washington, D. C. 20402

(Volume 1: Definition of Titles; $7.75
Volume 2: Occupational Class and Industry Index; $4.25
Supplements 1 and 2: Selected Characteristics of Occupations by Worker Traits and Physical Strength; $1.50 each
1965 edition)

This mammoth reference work lists about 23,000 job definitions and 400 titles. Volume 1 defines these titles and tells what the job is. Volume 2 explains the work performed, worker requirements, clues for relating applicants and job requirements, and training and methods of entering the job. The supplements list in tabular form the following characteristics of the occupations: the physical activities required, the working conditions (physical surroundings), and amount of training time required. This reference work is in dictionary-like form and requires some deciphering to be clearlv understood. Therefore, it is less appropriate for student use than the Occupational Outlook Handbook. Still, for teachers and guidance counselors, the book is basic. A new edition, to be published soon, will include more than 40,000 titles, many of them new since the previous edition.

Other Key Resources

Much helpful research never gets published in journals. To remedy this problem, agencies have been established in the last few years which collect, summarize, and disseminate news of research. These agencies are good networks for gathering and spreading information to scholars and educators. They mitigate one of the most frustrating and wasteful problems of research: that other people never hear about and make use of the results. Other agencies are developing career education curricula.

The following section is a guide to these agencies and to other sources of information on career education.

Research in Education (RIE)

Superintendent of Documents
U. S. Government Printing Office
Washington, D. C. 20402

(Monthly
Single copies, $1.75;
Subscriptions: $21 per year)

Research in Education is the monthly publication of ERIC, the Educational Resources Information Center. This nationwide system, funded by the federal government, consists of 18 clearinghouses, each responsible for collecting research in one area of education. (Examples of these areas include vocational and technical education, educational media and technology, early childhood education, and various subject fields.) The clearinghouses solicit books, articles, research papers, and educational reports. Those for which the authors grant copyright release are reprinted in both microfiche and hard copy form. All documents, whether reprinted or not, are abstracted. The abstracts and information on ordering copies are printed in RIE. RIE also includes an author index, document number index, and subject index.

The Center for Vocational and Technical Education

Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

This Center conducts a variety of activities of interest to career educators. It sponsors an annual national leadership seminar for state directors of vocational education, conducts research, and operates as a national information center for vocational and technical education. It has also produced more than 300 publications. Some of these are free

The Center for Vocational and Technical Education

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and can be requested from the center, while others can be obtained from the U.S. Government Printing Office, McGraw-Hill Book Co., or the ERIC Document Reproduction Service. A list of the publications and ordering information is published by the clearinghouse.

The National Center for Occupational Education

North Carolina State University
P.O. Box 5096
Raleigh, North Carolina 27607

The purpose of this center is to determine and gather information on the most advanced career education projects in the country. It has evaluated more than 100 projects in the field, developed criteria for assessing projects, and held a conference to determine the components and services of an ideal career education program. The center publishes an occasional newsletter, "Career Education Communicator," which has printed an annotated bibliography of instructional materials. It has also published a series of nine monographs. The topics include a manual for the implementation and administration of career education programs; curriculum guides for the lower school, middle school, upper school, and post secondary and adult education; career guidance; student placement and follow-up, professional development; and the community. These monographs are available at cost, $5.00 the set or $1.00 per individual copy.

THE CONSORTIUM FOR CAREER EDUCATION DEVELOPMENT

American Institutes for Research
Fresno County Department of Education
Live Oak Elementary School District
Pajaro Valley Joint Unified School District
San Lorenzo Valley Unified School District
Santa Clara Unified School District
Santa Cruz City Schools
Santa Cruz County Office of Education
Soquel Union Elementary School District

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